Test Specifications Fuel Injection Pumps (A) and Governors

VDT-WPP 001/4 KHD 1 c

3. Edition

						EN		
PES 2 A 80					/RSV	425-1500 A8B/C501D,704D	supersedes company	5.74 KHD
PES 3 A 75/80	C/D	410/3		1183		325-1400 A8B/C272D,495D,540D,742D 2011D,578D,1022D	engine	F L 912
			RS	1320		325-1250A8B/C2085L		BF 6 L 912
PES 3 A 75/80	C/D	410/3	RS	1324		325-1150A8B/C275D,298D,491D,492D,	493D	FL 912 W
PES 4 A 75/80	C/D	410/3	RS	1183		(1075)494D,540D,578D,601D,604D		
	C/D			1255		657D,705D,715D,694D		
PES 4 A 80		410/3				375-1150A8B/C590D		
PES 4 A 80				2346(2523)		325-1050A8B/C532D,577D		
PES 5 A 80	C\3	410/3				325-1000A8B/C588D,598D,1032D,733D		
				2347(2526)		375-1000A8B/C606D,		
PES 5 A 80		410/3				325- 900A7B/C494D,602D,634D,2011D		
PES 6 A 75		410/3				325- 750A7B/C633D,		
PES 6 4 75		410/3			/RS	275/1400A0B/C496D,		
PES 64 80/85	C/D	410/3				325/1400A0B/C620D,		
				2348		325/1650A0B/C2087L,		
			RS	2527		275-1400AB 757D,799D		
				40	RQ	275/1400AB 694D,798D		

All test specifications are valid for Bosch Fuel Injection Pump Test Benches and Testers

A. Fuel Injection Pump Settings

Port closing at prestroke 1,9 + 0,1

mm (from BDC) For a

For all plunger-and-barrel assembly diameters!

Rotational speed rev/min 1		Fuel delivery "C" 7,5 cm3/100 strokes 3	Difference cm³/ 100 strokes	Control rod travel mm 2	Fuel delivery "D" 7,5 cm³/100 strokes	Spring pre-tensioning (torque-control valve) mm 6
1000	12	6,2-6,6	0,4	12	5,2-5,6	
200	9 15 9	3,0-3,7 8,5-9,5 1,9-2,8		9 - 9	2,7-3,5 - 0,7-1,4	ę

Adjust the fuel delivery from each outlet according to the values in

Rotational speed rev/min 1	Control rod travel mm 2	Fuel delivery "C" 8 cm3/100 strokes 3	Difference cm³/ 100 strokes 4	Control rod travel mm	Fuel delivery "D" 8 cm³/100 strokes 3	Spring pre-tensioning (forque-control valve) mm
1000	9	4,1-4,5	0,4	9	3,1-3,5	
200	6 15 9	1,2-2,0 10,3-11,4 2,9-3,7		6 - 9	0,1-0,6 - 0,6-1,3	

Adjust the fuel delivery from each outlet according to the values in

Rotational speed rev/min 1	Control rod travel	Fuel delivery "C" 8,5 cm3/100 strokes	Difference cm³/ 100 strokes	Control rod travel mm 2	Fuel delivery "D" 8,5 cm3/100 strokes 3	Spring pre-tensioning (torque-control valve) mm
1000	9	5,0-5,5	0,4	9	4,1-4,5	
200	6 15 6	1,3-2,1 12,1-13,2 0,1-0,9		6 - 9	0,6-1,4	

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Adjust the fuel delivery from each outlet according to the values in

10.81

2-cy1.:

$$3-cy1$$
: $\begin{cases} 1-3-2 \\ 0-120-240 \end{cases}$

B. Governor Settings - page 3 - 13, Instructions page 11

C. Settings for Fuel Injection Pump with Fitted Governor

Jpper rated s	peed	Control rod	Intermediat	e rated sp	eed Control rod	Lower rated	speed	Control red		eeve travel
Degree of letiection it control		travel	deflection of control		travel	deflection of control	rev/min	travel	rev/min	mm
rer	rev/min 2	mm 3	lever 4	rev/min 5	mm 6	lever 7	8	mm 9	10	11
425 - 1	1500 A	5 B 501 D	L, 704 D	L						
loose	800	0,3-1,0				ca.26	425	5,5	1500	9,5-9,6 9,9-10,
	X	3,75						min. 19		10,5-10
ca. 68	1575-	1550 = 8,5 1605 = 4,0 = 0,3-1,7					425 610-6	5,9-6,1 70 = 2,0		
325 -	1400 /	A 8 B 495 D	L, 272							
loose	800					ca.20	325	5,0	1400 850	10,2-10 10,9-11
ca. 67	1440-	= 4,5 -1450 = 9,2					100 325 500-5	min. 19 5,4-5,6 60 = 2,0	500	11,5-11
		-1500 = 4,0 = 0,3-1,7								
325 -	1400	A 8 B 540 C	1, 578	DL, 10	22 DL			<u> </u>	1	
ca. 66		12,0			11:000	ca. 20	325	5,0	1380	0,4-0,6
	1430 1460	8,5 4,8	sprin		iliary		200 325	19-21 5,4-5,6	600	1,2-1,4
	1420 1500 1580	2,0-3,4	with sprin	auxili g	idry		450 660	2,7-4,1	5	
325 -	1400	A 8 B 2011	DL				<u> </u>	<u></u>		
1oose	800	0,3-1,0				ca. 20	325	5,0	1400	10,8-1
							100 325	min. 19 5,6-5,7	500	11,8-1
ca. 64	1475	-1450 = 9, $-1505 = 4,$ $-1505 = 4,$	0					560 = 2,0 0 - 1		
				 T		 T	1	l		I
		T	esto	I-IS	0 41	13				
		-								

A3

Upper rated :	speed	Control rod	Intermediate	e rated sp	1	Lower rated	speed	l Slidi		liding sleeve travel	
Degrae of deflection of control		travel	Degree of deflection of control		Control rod travel	Degree of deflection of control		Control rod travel	Torque-c	control travel	
lever 1	rev/min	mm 3	lever	rev/min	mm 6	lever	rev/min	mm	rev/min	mm	
	12	3	13	13	10	1′	[8	9	10	111	
425 -	1500 A	5 B 501 DL	with p	ump 12	255						
1oose	800 X	0,3 - 1,0 = 3,75				ca. 23	425	5,5	1500 1020	10,5-1 10,9-1	
ca. 66	1590-	1550 = 9,5 1620 = 4,0 = 0,3 - 1,7					100 425 610-6 750	min.19,0 5,9-6,1 570 = 2,0 0 - 1		11,5-1	
325 - 1	250 A	8 B 2085 L									
loose	800 X	0,3 - 1,0 = 4,0				ca. 18	325	7,8			
ca. 56	1315-	1300 = 10, 1345 = 4,0 = 0,3 - 1,7	0	4113			325	min. 19 8,2-8,4 90 = 2,0			
325 - 1	150 A	8 B 705 DL		80							
loose	800 X	0,3 - 1,0 = 4,75		<u>'</u>		ca. 21	325	5,0	1150 900	10,6-10 11,0-11	
ca. 54	1220-	1200 = 9,6 1250 = 4,0 = 0,1-1,7		Testoil			100 325 390-4	min. 19 5,4-5,6 50 = 2,0	500	11,6-11	
325 - 11	150 A	8 B 705 DL	with pu	mp 130	10						
loose	800 X	0,3 - 1,0				ca. 17	325	7,8	840	11,0-11 11,4-11	
ca. 52	1235-	1200 = 10,0 1265 = 4,0 = 0,3 - 1,7						8,2-8,4 00 = 2,0	500	11,6-11	
325 - 11	50 A 8	3 Б 715				<u> </u>					
1oose		0,3 - 1,0				ca. 17	325		950	9,0-9,1 9,5-9,8	
ca. 52	1205-	1200 = 8,0 1235 = 4,0 = 0,3-1,7					325 8 445 5	3,3-8,5 505 = 2,0	775	10,5-10 11,0-11	

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Upper rated s	Upper rated speed		Intermediate	rated spe	eed Dee	Lower rated	speed		Sliding sleeve travel		
Degree of deflection of control		Control rod travel	Degree of deflection of control		Control rod travel	Degree of deflection of control		Torque-control travel			
lever	rev/min	mm	lever	rev/min	mm	lever	rev/min	mm	rev/min	mm	
1	2	3	4	5	6	7	8	9	10	11	

325 - 1150 A 8 B 694 D

ca.	54	1150 1190	12,0	without	auvil	iary spri	ca.	21	325	5,0	1150	0
		1210	7,8 5,0	Wichout	auxii	lary spiri	119			19 - 21 5,4-5,6	450	0,9-1,1
		1200	8,0 - 9,6 5,0 - 7,5	with au	xiliar	y spring				1,6-3,5 0 - 1		
		1210	0,3 - 1,0									

325 - 1150 A 8 B 492 DL, 493 DL, 494 DL, 657 DL

ca. 54	1150 1180 1200	9,0	without	auxi	iary spri	ca. ng	21	5,0 19-21 5,4-5,6	0 0,4-0,6 0,9-1,1
	1280	8,0-9,5 3,4-5,0 0,3-1	with au	xilia	ry spring			1,6-3,4 0 - 1	

325 - 1150 A 8 B 494 DL with pump 1326

loose	1170- 1200-	0,3 - 1,0 4,0 -1180 = 9,5 -1230 = 4,0 = 0,3-1,7			ca. 18	100 325	5,0 min. 19 5,4-5,6 45 = 2,0	930	10,5 11,0-11 11,5	,2
				:						

325 - 1150 A 8 B 494 DL with pump 1324

loose	800	0,3 - 1,0		ca. 21	325	5,0	1150	10,6-10,7
	1220-	1200 = 9,6 1250 = 4,0 = 0,3 - 1,7			325 390-	min. 19 5,4-5,6 150 = 2,0 0 - 1	500	11,0-11.2 11,6-11.7

325 - 1150 A 8 B 494 DL with pump 1300

			 							_
loose	800	0,3-1,0		ca.	22	325	5,0	1150	10,5-10	6
	X ‡	5,5				100	min. 19	915	10,9-11	1
ca. 57	1190-1	200 = 9,5				325	5,4-5,6		11,4-11	5
	1230-1	260 = 4,0				395-	455 = 2,0			
	1400 =	:0,3 - 1,/								
	Ì									
	1230-1						5,4-5,6 455 = 2,0		11,4	-11

1	rev/min	Control rod travel	Intermediate Degree of deflection of control lever	rev/min	ced Control rod travel mm 6	Lower (Degree deflecti of cont lever 7	of	speed rev/min 8	Control rod travel mm		eeve travet ontrol travet mm
	2 50 A 8	3 B 657 DL	[4	5	<u>•</u>			19			
loose	800	0,3 - 1,0				ca.	17	325	5,0	1150	10,6-10,
	х :	4,25						100	min. 19	930	11,0-11
ca. 52	1210	1190=9,6 1240=4,0 = 0,3-1,7						325	5,4 - 5,5 45 = 2,0 0 - 1		11,6-11,
325-11	50 A	B B 491 DL	<u></u>	L	1			l	L	l	
ca. 53	1150	10,0				ca.	21	325	5,5	1150	0
	1180	7,0	withou	auxi	iary			200	19 - 21	1130	
	1200	5,0	spring					325	5,2-5,8	800	0,2-0,4
	1160	8,5-9,5						400	1,6-3,4	500	0,6-0,8
	1200	4,2-5,8	with a		ary			500	0 - 1		
	1300	0,3-1.0	spring								Ĺ
325-11	50 A	8 B 540 DL,	578 DL						·		
ca. 54	1150	12,0				ca.	21	325	5,0	1130	0
	1180	9,0			;) ;			200	19 - 21	000	0 5 0 7
	1210	5,2	WITHOU	nt aux	illiary spr	ing		325	5,4-5,6	1	0,5-0,7
	1160 1200			.,,	- coning			500		500	1,0-1,2
	1300	1	with a	uxili	ary spring			660	1		
325-11	50 A	8 B 601 DL									
325 - 11						ca.	21	325		1130	0
		16,0	withou	ut aux	iliary spr	ı	21	200	19 - 21		
	1150	16,0 11,4	withou	ut aux	iliary spr	ı	21	200 325	19 - 21 5,2-5,8	900	0
	1150 1200	16,0 11,4 5,7				ing	21	200 325 400	19 - 21 5,2-5,8 1,4-3,3	900	
	1150 1200 1250	16,0 11,4 5,7 7,7-12,4			iliary spr ary spring	ing	21	200 325	19 - 21 5,2-5,8 1,4-3,3	900	0,2-0,4
	1150 1200 1250 1220 1260	16,0 11,4 5,7 7,7-12,4	with a			ing	21	200 325 400	19 - 21 5,2-5,8 1,4-3,3	900	0,2-0,4
ca. 56	1150 1200 1250 1220 1260 1 36	16,0 11,4 5,7 7,7-12,4 3,0-6,4	with a			ing	21	200 325 400	19 - 21 5,2-5,8 1,4-3,3	900	0,2-0,4
ca. 56	1150 1200 1250 1220 1260 1 36	16,0 11,4 5,7 7,7-12,4 3,0-6,4 0 0,3- 1,0 8 6 298 DL	with a			ing	· · · · · · · · · · · · · · · · · · ·	200 325 400 500	19 - 21 5,2-5,8 1,4-3,3 0 -1,5	900	0,2-0,4
ca. 56	1150 1200 1250 1220 1260 1 36	16,0 11,4 5,7 7,7-12,4 3,0-6,4 0 0,3- 1,0 8 6 298 DL	with a			ing	· · · · · · · · · · · · · · · · · · ·	200 325 400 500	19 - 21 5,2-5,8 1,4-3,3 0 -1,5	900 500	0,2-0,4
325-11 loose	1150 1200 1250 1220 1260 1 36 50 A	16,0 11,4 5,7 7,7-12,4 3,0-6,4 0,3-1,0 8 6 298 DL 0,3-1,	with a			ing	· · · · · · · · · · · · · · · · · · ·	200 325 400 500	19 - 21 5,2-5,8 1,4-3,3 0 -1,5	900 500 1150 850	0,2-0,4

Upper rated	speed		intermediate	e rated sp	beed	Lower rated	speed		Sliding sl	leeve travel	
Degree of deflection of control lever	rev/min	Control rod travel	Degree of deflection of control lever	rev/min	travel defle		Degree of deflection of control lever rev/min mm			ontrol travel	
1	2	3	4	5	6	7	8	9	10	11	
323-13	130 %	8 B 275 DL	I								
10000	800	0,3-1,0				ca. 20	325	5,0	1150	10,6-10	
loose					1						
10026	x	4,0					100	min. 19	800	11,2-1	
	-	4,0 1200=9,6					100 325	min. 19 5,4-5,6		11,2-1 11,9-1	

325-1150 A 8 E 604 DL

1350 0,3-1,7

ca. 56	1150	16,0				ca.	Ž 1	325	5,0	1130	0
	1180	13,4	withou	t auxi	liary spr	ng		200	19 - 21	800	0,5-0,7
	1250	5,6						325	5,4 - 5,6	500	0,6-0,8
	1220	7,5-10,2						400	1,5 - 3,2		
	1280	1,6-4,4	with a	uxilia	ry spring			500	0 - 1	500	0,6-0,8
	1360	0,3-1,5									

375-1150 A 8 B 590 DL

	ca. 53	1150	10,0				ca.	20	375	5,0	1130	0
		1170	7,8	withou	t auxi	liary spr	ing		250	19 - 21		
		1200	4,5						375	5,4-5,6	800	0,4-0,6
		1170	7,5-8,6					-	430	2,0-3,8	500	0,9-1,1
		1230	1,5-3,4	with a	uxilia	ry spring		i	520	0 - 1		
L		1300	0,3-1.0			AA						

325-1075 A 8 B 492 UL, 657 DL

loose	800	0,3-1,0		ca.	21	325	5,0	1075	1,0-11,1
	X :	4,5				100	min. 19	900	11,4-11,7
ca. 52	1115-	1125=10,0		!		325	5,4-5,6	500	12,0-12,1
	1160-	1190= 4,0				380-	440=2,0		
	1300	0,3 - 1,7							

325-1050 A 8 B 532 DL

ca. 49	1050	10,0				ca.	21	325	5,0	1030	0
	1080	6,8			iliary		1	200	19 - 21	800	0
	1100	4,5	sprin	9				325	5,4-5,6	700	0,2-0,4
	1060	8,5-9,5						400	1,6-3,4	500	0,6-0,8
	1120	2,5-4,1	with	auxıli	ary			500	0 - 1		
	1200	0,3-1,0	sprin	9							

Upper rated	speed		Intermediate	e rated so	eed	Lower	rated	speed			
Degree of deflection of control		Control rod travel	Degree of deflection of control		Control rod travel	Degre deflect of con	e of		Control rod travel	Torque	deeve travel control trave
ever 1	rey/min	mm 3	lever 4	rev/min 5	mm 6	lever		rev/min	mm 9	rev/min	mm 11
325-10	50 A 8	B 577 DL	<u> </u>	 	<u> </u>			<u> </u>	4	- <u>k</u>	
ca. 51	1050	16,0				ca.	21	325	5,0	1030	0
	1100	11,0	without	auxi	iary spr	ng		200	19 - 21	800	0
	1150	5,0						325	5,4-5,6	700 (,1-0,2
	1070	14,0-14,8						400	1,6-3,4	500 0	,6-0,8
	1130	6,0-9,4	with a	xilia	ry spring			500	0 - 1		
	1250	0,3-1,0									
325-10	00 A 8	B 588 DL	l		1	L,			<u> </u>	<u> </u>	
loose	800	0,3-1,0				ca.	16	205	F 0	200	10.01
	×	= 4,25						325	5,0	980	10,8-1
/1									min. 19	800	11,1-1
ca. 41	1	1030= 9,8							5,4-5,6	500	11,8-1
		1090= 4,0				ĺ		380-4	40= 2,0		
	1200=	0,3-1,7			ļ		j				
325-10	00 A 8	B 598 DL								.	<u> </u>
ca. 48	1000	16,0				ca.	19	325	5,5		_
	1050	11,1	withou	auxi	liary spr	ng		200	19 - 21	980	0
	1100	5,0					İ	325	5,2-5,8		0,3-0,
	1060	9,0-11,0						40C	1,2-4,0	1 .1	0,9-1,
	1120	2,2-4,6	with a	xilia	ry spring			480	0 - 1	130	0,5-1,
	1220	0,3-1,5	ļ					.00	0 - 1		
375-100	00 A 8	B 606 DL	<u>-</u>							<u> </u>	
loose	800	0,3-1,0				ca.	20	375	5,0	1000	11,2-11
	X	= 4,25						100	min. 19		11,7-12
ca. 47	1040-	1050=10,2			i				5,4-5,6		12,2-12
İ	1075-	1105= 4,0		ı				1	180 = 2.0		14,4-14
	1200=	0,3-1,7		-				4207	100 - 2,0		
325-100	0 A 8	B 733 DL								1	
oose	800	0,3-1,0				ca.	19	325	5,0	1000	0
	х =	4,25							min. 19		
ca. 48	1060-1	080= 9,2						1	1		0,2-0,3
1	1	130= 4,0							5,4-5,6	500 L	1,0-1,1
- 1		0,3-1,7	1	- 1	i		- 1	ა გ ∪ქ4	30=2,0	1	

pper rated s	peed		Intermediate	e rated spe	1	Lower rated	speed	1		eove travel
egree of effection t control		Control rod travel	Degree of deflection of control		Control rod travel	Degree of deflection of control		Control rod travel		control travel
VOF	rev/min 2	mm 3	lever 4	rev/min	mm 6	lever 7	rev/min	mm 9	rev/min 10	mm 11
205 10		8 B 1032 DL	1		<u> </u>				<u> </u>	.
	JUU A	8 8 1032 00	<u> </u>	T	<u> </u>			5.0	1600	10 0 10
loose	800					ca. 19		5,0		10,8-10
	X		†				100	min. 19		11,1-11
ca. 4		-1050=9,8 -1105=4,0					325	5,4-5,6	500	11,5-11
		= 0,3-1,7					480-	580=2,0		
	1200	0,3-1,7						<u> </u>		
325-9	00 A 7	B 494 DL								
ca. 5	900	16,0				ca. 26	325	5,5	-	-
	950	10,0	withou	t aux	iliary spr	ing	10 0	19 - 21		
	. 1000	-	1				325	5,2-5,8		
	900	ca. 11,0					360	2,6-4,0		
	960	7,0-9,6	with a	uxilia	ary spring		450	0 - 1,5		
	1050	0.3-1.5	1	<u> </u>			<u> </u>	<u> </u>	l	
325-9	00 A 7	7 B 602 DL				1			T	1
loose	800	0,3-1,0 $= 5.5$				ca. 20	-	5,0		
ca. 5		930=9,2	†				325	min. 19 5,4-5,6		
Cu. U	1	5-975=4,0					1	420=2,0		
		0= 0,3-1,7					300-	720-2,0		
325-9	00 A	7 B 634 DL		1						
ca. 5	T	T				ca. 2	325	5,0		
0	92	1	witho	ut aux	liary sp	ring	100	min. 19		
	94						325	5,4-5,6		
	92						360	3,0-4,3	3	
	95	2,0-4,0	with	auxil'	iary sprin	g	450	0 -1,5	5	
	102	0,3-1,5					<u></u>			
325-9	00 A	7 B 2011 D								
loose	80					ca. 2	6 325	5,5	900	0
. 5050	1	= 5,5					100	min. 19	600	0,6-0,
6	_	0-950=10,6	T				325	1		0,9-1
Çd. t						1	,	, ,	1	
Ça. t	1	5-995= 4,0					430-	500 = 2,0	þ	

Εn

Upper rated s	beed		Intermediate	rated spe		Lower rated	speed	Control rod		eeve travel
Degree of deflection of control		Control rod travel	Degree of deflection of control	- /	Control rod travel	Degree of deflection of control lever	rev/min	travel	rev/min	mm
lever	rev/min 2	mm 3	lever 4	rev/min 5	mm 6	7	8	9	10	11
325-75		B 633 DL		<u> </u>						
ca. 45	750	16,0				ca. 21	325	5,5	730	0
	775	11,4	without	auxi	iary spr	ng	180	19 - 21		
	800	6,0					325	5,2-5,8	400	0,5-0,7
	760	9,2-10,4			1		420	2,0-3,6		
	850	1,5-3,3	with a	xilia	ry spring		580	0 - 1		
	920	0,3- 1								
EP/RS 2	275/14	00 A O B 49	6 DL	<u> </u>						
VHca.72	1400	9,8	<u> </u>		*	VH max.	285	5,9	1380	0
		9,8-10,6		1			150	20 - 21	V	
FH max.	1	7,6-9,2			*	FHca.40	285	5,6-6,2	900	0,4-0,6
		4,6-6,4					400	3,2-4,7	400	0,8-1,0
		2,0-3,8					600	0 - 1	400	D,0-1, 0
		0,3-1								
EP/RS :	325/14	100 A O B 62	O DL							
VHca.73		15,8-16,4	-	-	- *	VH max.	325	8,3	1380	0
	-	12,9-14,0					260	9,1-10,0	1250	
FH max.		9,9-11,5			*	FHca31	300	8,4-9,1	1900	0,8-1,6
	1550						350	7,4-7,9	600	1,2-1,4
	1600						450	4,1-5,6		
	1660						800	3,5-4,0		
	1000	0,0 1,0	<u> </u>	<u> </u>	1		1500	0	L	<u> </u>
		550 A O B 20	087 L				1		Т	1
VHca.49	800	0,3-1,0			*	Timux.		6,0		
FH max			_		*	FHca18	100	min.10,8	İ	
	1690-	700=8,9						490=2,0		
	1740-	1770=4,0				İ	600	1,8		1
	1900	0,3-1,7								
		<u></u>					<u> </u>		<u></u>	
		trol lever <u>Perato leve</u>	er			1	Τ	1	1	
									1	
1	1		1		1	1	1	1	1	

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EP/RS 325/1400 AO B620DL is an idle maximum speed governor of a new kind. Compared with the EP/RSV governor it has the following characteristics:

a) The speed control lever is fixed with blocking screws.

b) The shutoff arm serves as driving lever (delivery lever).

c) A steel bolt pressed into the governor housing serves as the max. speed stop of the driving lever.

d) The lower idle speed is governed by a spring in the torque-control capsule.

e) There are no idle auxiliary spring or stop/idle-stop screw.

The testing and adjustment of the governor correspond partly to that of the EP/RSV..- governor (see Test Instructions VDT-WPP 001/4-1st. suppl.). Those work steps which are different are listed below.

Preliminary mechanical test see Test Instructions, section 1.

To 1.a): The stop screw must no longer be set.

To 1.b): When testing the full control-rod travel, the driving lever should be brought into the full load position.

Adjusting and testing

The clamping device 1 688 040 122 - EFEP 56 C/4 should be used for mounting the adjusting device 0 681 440 006 - EFEP 56 C.

1. Basic position of the governor spring and testing of the control-rod travel at upper rated speed see Test Instructions, step 1. Test specifications see section B, columns 1-3.

Fix the resulting final control-lever position with the stop screw.

Pull the drive lever with spring at max. speed stop if necessary.

Additional instructions: The difference in the control-rod travel between rising and falling speed must not exceed 1 mm..

When driving lever is in rated speed position press the stop button. The control rod must also reach stop position.

- Adjusting the full-load delivery: see Test Instructions, step 2.
 Drive lever in position full load.
 Test specifications see section C, columns 1-2.
- 3. Adjusting the torque control: see Test Instructions, steps 3 and 3a.

 Drive lever in position full load.

 Test specifications see section B, columns 10-11 and section C, columns 4-5.
- 4. Check the idle-speed control (replaces step 4 of the test instructions). Adjusting device EFEP 56.. should be removed from the control lever and adjust according to drive lever. (Please note: drive lever horizontal position = 40°). Test specifications see section B, columns 7-9.

Drive the pump at the speed shown in the frame and adjust the drive lever so that the relevant control-rod travel can be reached. In this way the drive lever position should correspond to the value given.

Clamp the drive lever firmly.

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Check the control-rod travel lengths at the speeds prescribed. If necessary, change the spring retainer and repeat the test from 3. The difference between rising and falling speeds must not exceed 0.7 mm..

- 5. Step 5 of the Test Instructions is no longer required.
- 6. Adjusting the breakaway: see Test Instructions, step 6. Test specifications see section C, column 3.

When adjustment has successfully been completed, block the control lever with both stop screws.

B.	Go	vernor	Setting	S
U.	UU	1611101	Jetting	3

Checking PRG che	g of slider	Full-load Setting p	•	-	cifications (4)	idle spe	_		cifications (5)	Torque	(3)
rev/min	Control rod travel mm	rev/min	Control rod travel mm	Control red travel mm	rev/min	rev/min	Control red travel rmm	rev/min	control rod travel mm	rev/min	travel
RQ	275/1400	AB 694	D, 79	8 D							1
1300	13,7-14,	1300	14,0	1420	13,6-14,0	640	0	100	6,2-8,1	650	15,8-16,0
				1460	9,6-13,0			250	4,8-6,8	900	14,9-15,3
		İ		1530	0 - 9	•		350	3,0-5,2	1100	14,0-14,3
		1		1620	0			540	0		

Torque control travel on flyweight assembly dimension a 0,65

Speed regulation At

1 mm less control rod travel

C. Settings for Fuel Injection Pump with Fitted Governor

governor	delivery on control lever mp 40°C (104°F)	Control rod stop	Fuel deliv	very characteristics	へいい	Starting f	Cont
rev/min	cm ³ /-1000 strokes	rev/min	rev/min	cm ³ /-1000 strokes	1	revimin 6	cm ³ /1000 strokes / mm 7
			į	•			

Checking values in brackets

B. Governor Settings

Checking PRG che rev/min	Full-load s Setting po rev/min 3		rev/min	Idle spee Setting p rev/min 7	Cont Control rod fravel	Test spe	cifications (5) Control rod travel mm	rev/min	Control rod (3)

Torque-control travel on flyweight assembly dimension a =

Speed regulation At

1 mm less control rod travel

C. Settings for Fuel Injection Pump with Fitted Governor

governor	delivery on control lever mp 40°C (104°F)	Control rod stop	(3a) Fuel delive	Fuel delivery characteristics			Starting fuel delivery Idle speed Cor	
rev/min	cm ³ /-1000 strokes	rev/min	rev/min 4	cm ³ /~1000 strokes 5		rev/min 6	cm ³ /1000 strokes / m	
						1		
			4 1 1 1 4					
				***************************************			1	
Checking	values in brackets			<u>i</u>			Andrew Company Company	

	Upper rated speed			Intermediate	mediate rated speed Lo			Lower rated speed			Sliding sleeve travel	
	Degree of deflection of control		Control rod travel	Degree of deflection of control	4 4	Control rod travel	Degree of deflection of control		Control rod travel	Torque-control trave		
ı	lever	rev/min	mm	lever	rev/min	ww	lever	rev/min	WW.	LGA/WIU	unun	
	1	2	3	4	5	6	7	8	9	10	11	

RQV 275	-1400	AB 757 D,	799 D				•			
ca. 68	1400 1480 1560 1660	15,0-18,2 7,8-13,0 0 - 7,2 0	-	-	to:	que-cor ca.12	240 350 500 700 890	travel Ma 6,0-8,0 2,8-4,8 2,4-3,8 0,8-2,2 0	1400 1100	0,9 mm 0 0,4-0,6 0,8-1,0
										,

	full-load stop temp 40°C (104°F)	Rotational- speed irrutat	99;	nel delivery haracteristics	Output and speed
rev/min	1	changed to) rev/min 3	rev/min	cm ² /1000 strokes	PS /U/min.
	F 2 L 912 -	PES 2 A 80 D	310/3	RS 1322	(F- or B-power)
400 250 250 250 250 200	60,0-61,0 50,5-52,5 45,5-47,5 36,5-38,5 59,5-61,5	1440 1270 1270 1270 1270 1220	700 800 800 800 800	54,5-56,5 44,0-47,0 38,0-41,0 31,0-34,0 56,5-59,5	28 kW / n = 2800 23 kW / n = 2500 21 kW / n = 2500 18 kW / n = 2500 26 kW / n = 2400
150 075 000 950 900	45,5-47,5 48,0-50,0 58,5-60,5 57,5-59,5 57,5-59,5	1170 1095 1020 970 920	800 800 800 800	38,5-47,5 44,0-47,0 57,5-60,5 56,5-59,5	20 kW / n = 2300 21 kW / n = 2150 23 kW / n = 2000 22 kW / n = 1900 21 kW / n = 1800
900 900 900 800 750	47,0-49,0 55,0-56,0 38,5-40,5 31,5-33,5 40,5-42,5	920 940 920 820 760	800 800 -	47,0-50,0 - 37,0-40,0 - -	19 kW / n = 1800 18,5 kW / n = 1800 16,5 kW / n = 1800 13 kW / n = 1600 15,0 kW / n = 1500
750 750	60,5-62,5 35,5-37,5	760 760	-	-	18,0 kW / n = 1500 14,0 kW / n = 1500
ICXN-powe	 er output (10%	 % above rated o	utput)	 	
900 900 750	63,5-65,5 51,0-53,0 59,5-61,5	910 910 760		- - -	A 20,0 (+10%) / n = 1800 A 18,0 (+10%) / n = 1800 A 16,5 (+10%) / n = 1500
I 5N-powe	r output (5% a	bove rated out	put)		
900	63,0-65,0	910	-	-	A 21,0 (+ 5%) / n = 1800
					Testoil-ISO 4113

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②	ull-load stop temp 40°C (104°F)	Rotational- speed limitat		nel delivery Bracteristics	Output and speed
rev/min	cmili 1000 strakes 2	changed to 3 rev/min 3	rev/min 4	cm ² /1000 strokes 5	PS /U/min.
F 3 L 912	- PES 3A 80	D 410/3 RS 118	3, 13	4	(F- or B-power output)
1500 1500 1400 1400 1325	57,5-59,5 53,5-55,5 65,5-67,5 60,5-62,5 63,5-65,5	1520 1520 1420 1420 1340	800 800 800 800 800	41,5-44,5 37,5-40,5 51,5-54,5 48,5-51,5 50,5-53,5	38,3 kW (52 PS) / n = 3000 34,6 kW (47 PS) / n = 3000 42,7 kW (58 PS) / n = 2800 40,5 kW (55 PS) / n = 2800 41,2 kW (56 PS) / n = 2650
1325 1300 1250 1250	59,0-61,0 55,5-57,5 62,0-64,0 59,5-61,5	1340 1320 1270 1270	800 800 800 800	47,5-50,5 43,5-46,5 51,5-54,5 51,5-54,5	39,0 kW (53 PS) / n = 2650 36,8 kW (50 PS) / n = 2600 39,7 kW (54 PS) / n = 2500 39,0 kW / n = 2500
1250 1250 1250 1250 1225 1200	58,5-60,5 56,5-58,5 49,5-51,5 56,0-58,0 60,5-62,5	1270 1270 1270 1270 1240 1220	800 800 800 800 800	50,5-53,5 48,0-51,0 40,5-43,5 46,5-49,5 51,5-54,5	38,0 kW / n = 2500 37,0 kW / n = 2500 33,0 kW / n = 2500 36,8 kW (50 PS) / n = 2450 39,0 kW (53 PS) / n = 2400
1200 1200 1175 1175 1150	58,0-60,0 54,5-56,5 59,5-60,5 50,5-51,5 59,0-61,0	1220 1220 1195 1195 1170	800 800 775 775 775	48,5-51,5 47,5-50,5 55,5-56,5 48,5-49,5 55,0-58,0	37,5 kW (51 PS) / n = 2400 36,0 kW / n = 2400 38,0 kW / n = 2350 33,0 kW / n = 2350 37,5 kW (51 PS) / n = 2300
1150 1150 1150 1150 1100	57,5-58,5 56,0-58,0 53,0-55,0 48,5-50,5 44,5-46,5	1170 1170 1170 1170 1170	775 800 775 800 800	56,0-57,0 52,0-55,0 48,5-51,5 44,0-47,0 38,5-41,5	37,0 kW / n = 2300 ³ 36,0 kW / n = 2300 35,0 kW / n = 2300 32,0 kW / n = 2300 29,0 kW / n = 2300
1100 1095 1075 1075 1075	55,5-57,5 50,5-52,5 57,5-59,5 54,5-56,5 47,0-49,0	1120 1115 1090 1090 1095	775 775 775 775 775 800	52,5-55,5 53,5-56,5 54,5-57,5 51,5-54,5 44,0-47,0	35,3 kW (48 PS) / n = 2200 33,0 kW / n = 2190 36,0 kW (49 PS) / n = 2150 34,6 kW (47 PS) / n = 2150 31,0 kW / n = 2150
1075 1050 1000 1000 1000	41,5-42,5 45,0-47,0 55,5-57,5 53,0-54,0 49,5-51,5	1090 1070 1015 1020 1015	775 800 775 775 775	37,5-39,5 43,5-46,5 53,5-56,5 58,0-59,0 47,5-50,5	25,8 kW (35 PS) / n = 2150 30,0 kW / n = 2100 33,9 kW (46 PS) / n = 2000 33,0 kW / n = 2000* 31,3 kW (42,5PS) / n = 2000
1000 1000 1000 975 900	46,5-48,5 44,5-46,5 43,5-44,5 36,5-38,5 54,0-56,0	1020 1020 1020 995 910	800 800 775 800 775	45,0-49,0 43,5-46,5 46,5-47,5 33,0-36,0 53,0-56,0	30,0 kW / n = 2000 29,0 kW / n = 2000 28,0 kW / n = 2000* 22,0 kW / n = 1950 30,9 kW (42 PS) / n = 1800
* tractor					
					Testoil-ISO 4113

Test oil temp 40°C (104°F)		Rotational Sa Fuel delivery characteristics			Output and speed		
rev/min	cm#1000 strokes	changed to 3 rev/min 3	rev/min	cm [®] 1000 strokes 5	PS /U/min.		
L 912	- PES 3 A 80	D 410/3 RS 11	3 , ·	1324	(F- or B-power output) (cont.)		
	50,0-52,0 47,0-49,0 43,5-45,5 43,0-45,0 54,0-56,0	910 885 860 810 760	775 775 775 -	50,0-53,0 46,0-49,0 43,0-46,0	29,4 kW (40 PS) / n = 1800 27,6 kW (37,5PS) / n = 1750 25,4 kW (34,5PS) / n = 1700 23,9 kW (32,5PS) / n = 1600 26,5 kW (36 PS) / n = 1500		
	50,0-52,0 42,0-44,0	760 620	-	-	25,0 kW (34 PS) / n = 1500 18,0 kW / n = 1200		
					·		
					Testoil-ISO 4113		
	Test oil te rev/min 1	Test oil temp 40°C #104°F1 rev/min cm21000 strokes 2 L 912 - PES 3 A 80 50,0-52,0 47,0-49,0 43,5-45,5 43,0-45,0 54,0-56,0 50,0-52,0	Test oil temp 40°C (104°F) rev/min 1 2 L 912 - PES 3 A 80 D 410/3 RS 11 50,0-52,0 910 47,0-49,0 885 43,5-45,5 860 43,0-45,0 810 54,0-56,0 760	Test oil temp 40°C (104°F) rev/min 1 2 L 912 - PES 3 A 80 D 410/3 RS 1183, 50,0-52,0 47,0-49,0 43,5-45,5 43,0-45,0 54,0-56,0 50,0-52,0 760 - 50,0-52,0 760 -	Test oil temp 40°C (104°F) rev/min 1 2		

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	#-load stop emp 40°C (104°F)	Note	30%	el delivery eracteristics	Output and speed
rev/min	cm [®] 1000 strokes 2	changed to) rev/min 3	rev/min 4	cm®1000 strokes 5	PS /U/min.
F 3 L 912	- PES 3 A 80	D 410/3 RS118	3,1324		Power output ICXN (10% above rate
1500	54,5-56,5	1520	-	-	32,4kW(44 PS)(+10%) / n = 3000
1485	58,5-61,5	1495	-	-	35,0kW $(+10%)$ / $n = 2970$
1400 1325	55,0-57,0	1420	-	-	33.9kW(46 PS)(+10%) / n = 2800
1250	57,0-59,0 54,5-56,5	1340 1270	-	-	34,6kW(47 PS)(+10%) / n = 2650 33,5kW(45,5PS)(+10%) / n = 2500
1200	41, -43,5	1210	-	-	22,0kW (+10%) / n = 2400
1150	59,0-61,0	1170	~ .	-	34,6kW(47 PS)(+10%) / n = 2300
1150	55,0-57,0	1170	-	-	32,4kW(44 PS)(+10%) /n = 2300
1100 1100	57,5-59,5 52,5-54,5	1110 1120	-	-	33,0kW (+10%) / n = 2200 30,9kW(42 PS)(+10%) / n = 2200
1075	56,5-58,5	1090	-	-	32,4kW(44 PS)(+10%) / n = 2150
1075	53,0-55,0	1090	-	-	31,3kW(42,5PS)(+10%) /n = 2150
1000	53,5-55,5	1015	-	-	30,2kW(41 PS)(+10%) / n = 2000
1000	47,0-49,0	1015	-	-	27,2kW(37 PS)(+10%) /n = 2000
900	57,0-59,0	910	~	-	29 kW (+10%) / n = 1800
900	53,0-55,0	910	_	-	28 kW(38 PS)(+10%) / $n = 1800$
900	50,0-52,0	910	-	-	26,9kW(36,5PS)(+10%) / n = 1800
900	43,5-45,5	910	-	40-	(+10%) / n = 1800
750	58,5-60,5	760	-	-	(25,0) $(+10%)$ $/$ $n = 1500$
750	53,5-55,5	760	-	-	(+10%) / n = 1500
750 750	51,5-53,5	760	-	-	23,6kW(32 PS)(+10%) /n = 1500
750 750	48,5-50,5 47,0-49,0	760 760	-	-	22,4kW(30,5PS)(+10%) / n = 1500 22,0kW (+10%) / n = 1500
750 750	42,5-44,5 35,0-37,0	760 760	-	-	20,0kW (+10%) / n = 1500 16,8kW (+10%) / n = 1500
	00,0 0,,0	700		_	10,0KW (+10%) / n = 1500
Power out	put I5N (5%	above rated ou	tout)		
900	59,5-61,5	910	-	-	31,0kW (+5%) / n = 1800
900	52,0-54,0	910	-	-	29 kW $(+5\%)$ / n = 1800
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	M-load stop emp 40°C (104°F)	Rotational- speed irritat	33 to	el delivery Bracleristics	Output and speed
	cm3r1000 strokes	changed to) rev/min 3	rgv/min*	cm [®] 1000 strokes 5	PS /U/min.
F 3 L 912	- PES 3 A <u>75</u>	D 410/3 RS 118	3,1185	(F- or B-po	wer output)
1500 1500 1400 1400 1325	58,5-60,5 54,5-56,5 65,0-67,0 60,5-62,5 61,0-63,0	1520 1520 1420 1420 1340	800 800 800 800 800	45,0-48,0 41,5-44,5 53,0-56,0 50,0-53,0 52,0-55,0	38,3 kW (52 PS) / n = 3000 34,6 kW (47 PS) / n = 3000 42,7 kW (58 PS) / n = 2800 40,5 kW (55 PS) / n = 2800 41,2 kW (56 PS) / n = 2650
1325 1300 1250 1250 1225	58,0-60,0 55,0-57,0 59,0-61,0 56,5-58,5 54,5-56,5	1340 1320 1270 1270 1240	800 800 800 800 800	49,5-52,5 46,5-49,5 53,5-56,5 50,5-53,5 48,5-51,5	39,0 kW (53 PS) / n = 2650 36,8 kW (50 PS) / n = 2600 39,7 kW (54 PS) / n = 2500 38,2 kW (52 PS) / n = 2500 36,8 kW (50 PS) / n = 2450
1200 1200 1150 1150 1100	58,0-60,0 56,0-58,0 56,5-58,5 51,5-53,5 53,5-55,5	1220 1220 1170 1170 1120	800 800 775 775 775	53,5-56,5 51,0-54,0 55,5-58,5 51,0-54,0 54,0-57,0	39,0 kW (53 PS) / n = 2400 37,5 kW (51 PS) / n = 2400 37,5 kW (51 PS) / n = 2300 34,6 kW (47 PS) / n = 2300 35,3 kW (48 PS) / n = 2200
1075 1075 1000 1000 1000	55,5-57,5 53,0-55,0 53,5-55,5 49,5-51,5 46,0-48,0	1090 1090 1015 1015 1015	775 775 775 775 775	55,5-58,5 53,0-56,0 54,0-57,0 49,0-52,0	36,0 kW (49 PS) / n = 2150 34,6 kW (47 PS) / n = 2150 33,9 kW (46 PS) / n = 2000 31,3 kW (42,5PS) / n = 2000 27,2 kW (37 PS) / n = 2000
900 900 875 850 800	54,0-56,0 51,0-53,0 49,0-51,0 46,5-48,5 46,0-48,0	910 910 885 885 810	775 775 775 775 -	54,5-57,5 52,0-55,0 49,0-52,0 46,0-49,0	30,9 kW (42 PS) / n = 1800 29,4 kW (40 PS) / n = 1800 27,6 kW (37,5PS) / n = 1750 25,4 kW (34,5PS) / n = 1700 23,9 kW (32,5PS) / n = 1600
750 750	46,0-48,0 52,5-54,5	760 760	-	-	26,5 kW (36 PS) / n = 1500 25,0 kW (34 PS) / n = 1500
ICXN-power	r output (10%	above rated ou	utput)		
1500 1400 1325 1250 1150	54,5-56,5 55,0-57,0 56,0-58,0 53,0-55,0 56,5-58,5	1520 1420 1340 1270 1170		- - -	32,4 kW (44 PS) / n = 3000 33,9 kW (46 PS) / n = 2800 34,6 kW (47 PS) / n = 2650 33,5 kW (45,5PS) / n = 2500 34,6 kW (47 PS) / n = 2300
1150 1100 1075 1075 1000	52,5-54,5 51,0-53,0 54,0-56,0 51,0-53,0 53,0-55,0	1170 1120 1090 1090 1015	-	- - - -	32,4 kW (44 PS) / n = 2300 30,9 kW (42 PS) / n = 2200 32,4 kW (44 PS) / n = 2150 31,3 kW (42,5PS) / n = 2150 30,2 kW (41 PS) / n = 2000
1000 900 900 900 900 750	45,5-47,5 53,0-55,0 51,0-53,0 47,5-49,5 54,0-56,0	1015 910 910 910 760	-	- - - -	27,2 kW (37 PS) / n = 2000 28,0 kW (38 PS) / n = 1800 26,9 kw (36,5PS) / n = 1800 25 kW / n = 1800 23,6 kW (32 PS) / n = 1500
750	51,0-53,0	760	-	-	22,4 kW (30,5PS) / n = 1500
En		Tool		SO 41	3

2b Full-load stop	104°F) Note	appeal limited	uel delivery heractenstics	Output and speed
reviews 5mm/1000	chang	ed to .) n rev/min 4	cm#1000 strokes 5	PS /U/min.
F 4 L 912 - 1	PES 4 A <u>80</u> D	410/3 RS 118	3, 1300. 2346	(F- or B-power output)
1400 63,5-0 1400 61,0-0 1350 52,5-1 1325 62,5-0 1325 58,0-0	53,0 1420 54,5 1370 54,5 1340	800 800 - 800 800	59,5-62,5 58,5-61,5 - 56,5-59,5 54,5-57,5	58,9 kW (80 PS) / n = 2800 57,0 kW / n = 2800 50,4 kW / n = 2700 56,7 kW (77 PS) / n = 2650 54,0 kW / n = 2650
1325 56,5-5 1250 61,0-6 1250 60,5-6 1250 57,0-5 1200 60,5-6	53,0 1270 52,5 1270 59,0 1270	800 800 800 800 800	51,5-54,5 56,5-59,5 57,0-60,0 54,0-57,0 56,5-59,5	52,0 kW
1200 58,0-6 1200 56,0-5 1150 59,0-6 1150 59,5-6	58,0 1220 51,0 1170	800 775 800	52,5-55,5 59,5-62,5 60,5-61,5	52,0 kW / n = 2400 50,0 kW (68 PS) / n = 2400 51,5 kW (70 PS) / n = 2300 51,0 kW / n = 2300*
1150 56,5-5 1150 57,0-5 1150 57,0-5 1150 51,5-5 1150 48,0-5	9,0 1170 8,0 1170 3,5 1170	775 800 800 775	56,5-59,5 55,5-58,5 54,5-57,5 51,5-54,5	49,3 kW (67 PS) / n = 2300 49,0 kW / n = 2300 48,0 kW / n = 2300 45,6 kW (62 PS) / n = 2300 43,0 kW / n = 2300
1100 59,0-6 1100 51,0-5 1075 59,5-6 1075 57,0-5 1075 54,0-5	3,0 1120 1,5 1090 8,0 1095	775 775 775 775 775 775	58,5-61,5 51,5-54,5 58,5-61,5 62,0-63,0 54,0-57,0	50.0 kW (68 PS) / n = 2200 44.1 kW (60 PS) / n = 2200 49.3 kW (67 PS) / n = 2150 48.0 kW / n = 2150* 46.3 kW (63 PS) / n = 2150
1075 1065 1050 1025 48,0-5 54,0-5 49,0-5	5,0 1085 6,0 1065	800 800 775 775	49,0-52,0 60,0-61,0 54,0-57,0 49,5-52,5	42,0 kW / n = 2150 46,0 kW / n = 2130* 45,6 kW (62 PS) / n = 2100 41,2 kW (56 PS) / n = 2050

Test on temp 40°C (104°F)

rev/min cmfr1000 strokes 1 2 3 Fuel delivery characteristics

Output and speed - ..PS / ..U/min.

-21-

F 4 L 912 - PES 4 A 80 D 410/3 RS 1183,1300,2346 Power output-ICXN (10% above rated cutput)

					i i	
1150	58,5-60,5	1170	-	-	46,3 kW (63 PS)	// n = 2300
1150	52.0-54.0	1170	-	-	42.7 kW (58 PS)	/ n = 2300
1100	52,0-54,0	1120	-	•	41.2 kW (56 PS)	/ n = 2200
1100	48,5-50,5	1120	-	· •	39.0 kW (53 PS)	/ n = 2200
1075	57,0-59,0	1090	-	•	44,1 kW (60 PS)	/ n = 2150
1075	48,5-50,5	1090	-	-	38,5 kW (52,5PS)	/ n = 2150
1050	45,0-47,0	1065	-	-	35,3 kW (48 PS)	/ n = 2100
900	49,0-51,0	910	1 - 1	-	36,0 kW	/ n = 1800
900	62,0-64,0	910	1 - 1	-	40,0 kW	/ n = 1800
900	52,0-54,0	910	-	•	36,0 kW	/ n = 1800
900	42,5-44,5	910	-	•	31,0 kW	/ n = 1800
750	61,0-63,0	760	- 1	-	34,0 kW	/ n = 1500
750	57,0-59,0	760	-	-	32,0 kW	/ n = 1500
750	51,0-53,0	760	-	-	29,0 kW	/ n = 1500
					Į.	

Power output-I5N (5% above rated output)

900 63,5-65,5 910 - - 43,0kW / n = 1800

	ulf-load stop lemp 40°C (104°F) cmlk-1000 strokes 2	Rotational- speed limits Rote changed to 1 southern		net delivery Neracteristics cm#1000 strokes	Output and speed PS /U/min.	
F 4 L 912		D 410/3 RS 11	83,125	 	power output)	
1500 1500 1500 1400 1325	56,0-58,0 50,5-52,5 48,5-50,5 54,5-56,5 53,0-55,0	1520 1520 1520 1520 1140 1345	800 800 800 800	43,0-46,0 37,0-40,0 35,0-38,0 49,5-52,5		n = 3000 n = 3000 n = 3000 n = 2800 n = 2650
1250 1250 1150 1150 1150	52,0-54,0 42,5-44,5 54,5-56,5 51,5-53,5 48,5-50,5	1270 1270 1170 1170 1170	800 800 775 775 775	52,5-55,5 35,5-38,5 59,0-62,0 55,0-58,0 48,0-51,0	51,5 kW (70 PS) / 49,3 kW (67 PS) /	n = 2500 n = 2500 n = 2300 n = 2300 n = 2300
1100 1100 1075 1075 1050	54,5-56,5 46,5-48,5 55,0-57,0 49,0-51,0 49,5-51,5	1120 1120 1090 1090 1065	775 775 775 775 775 775	59,0-62,0 48,0-51,0 58,0-61,0 52,0-55,0 52,0-55,0	44,2 kW (60 PS) / 49,3 kW (67 PS) / 46,4 kW (63 PS) /	n = 2200 n = 2200 n = 2150 n = 2150 n = 2100
1025 1000 1000 950 900	44,5-46,5 48,5-50,5 55,0-57,0 45,5-47,5 56,5-58,5	1040 1020 1015 960 910	775 800 775 775 775	46,0-49,0 48,5-51,5 57,0-60,0 46,0-49,0 57,0-60,0	47,0 kW / 46,4 kW (63 PS) / 39,7 kW (54 PS) /	n = 2050 n = 2000 n = 2000 n = 1900 n = 1800
900 875 800 750 750	51,5-53,5 45,5-47,5 46,5-48,5 56,5-58,5 52,0-54,0	910 885 810 760 760	775 775 - - -	52,0-55,0 46,0-49,0 - -	36,8 kW (50 PS) / 33,5 kW (45,5 PS) / 35,3 kW (48 PS) /	n = 1800 n = 1750 n = 1600 n = 1500 n = 1500
ICXN-power	output (10%	above rated out	tput)	,		
1500 1400 1325 1250 1150	50,5-52,5 51,0-53,0 51,5-53,5 50,0-52,0 53,0-55,0	1520 1420 1340 1270 1170		- - - -	44,9 kW (61 PS) / 45,6 kW (62 PS) / 44,2 kW (60 PS) /	n = 3000 n = 2800 n = 2650 n = 2500 n = 2300
1150 1100 1100 1075 1075	48,5-50,5 47,0-49,0 44,0-46,0 52,0-54,0 45,0-47,0	1170 1120 1120 1090 1090	-	- - - -	41,2 kW (56 PS) / 1 39,0 kW (53 PS) / 1 44,2 kW (60 PS) / 1	n = 2300 n = 2200 n = 2200 n = 2150 n = 2150
1050 1000 1000 900 900	40,5-42,5 52,0-54,0 47,0-49,0 54,5-56,5 49,0-51,0	1065 1015 1015 910 910	-	- - - -	41,2 kW (56 PS) / 1 39,0 kW (53 PS) / 1 38,3 kW (52 PS) / 1	n = 2100 n = 2000 n = 2000 n = 1800 n = 1800
900 875 750 750	40,5-42,5 43,5-46,5 53,5-55,5 49,0-51,0 42,5-44,5	910 885 760 760 760	-	- - -	32,4 kW (44 PS) / r 31,6 kW (43 PS) / r 30,2 kW (41 PS) / r	n = 1800 n = 1750 n = 1500 n = 1500 n = 1500
750	36,0-38,0	760	.	- 1	25,5 kW / m	n = 1500

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3	uti-load stop temp 40°C (104°F)	Rotational- apeed limitat		uel delivary haracteristics	Output and speed
	cm [®] r1000 strokes	changed to) rev/min 3	rev/min 4	cm年1000 strokes 5	PS /U/min.
F 5 L 912	- PES 5 A 8	0 D 410/3 RS 23	27 , 234	17, (F- or	B power output)
1500 1500 1400 1400 1325	55,0-57,0 50,0-52,0 63,5-65,5 58,0-60,0 61,5-63,5	1520 1420	800 800 800 800 800	40,5-43,5 36,5-39,5 55,0-58,0 48,5-51,5 54,0-57,0	57,4 kW (78 PS) / n = 3000 73,6 kW (100PS) / n = 2800
1325 1300 1250 1250 1250	55,5-57,5 54,5-56,5 59,5-61,5 56,0-58,0 54,5-56,5	1340 1320 1270 1270 1270	800 800 800 800 800	48,0-51,0 46,5-49,5 54,5-57,5 50,5-54,0 52,0-55,0	64,8 kW (88 PS) / n = 2650 63,3 kW (86 PS) / n = 2600 68,4 kW (93 PS) / n = 2500 64,8 kW (88 PS) / n = 2500 64,0 kW / n = 2500
1200 1200 1200 1175 1150	58,0-60,0 52,5-54,5 50,0-52,0 57,5-59,5 57,0-59,0	1220 1220 1220 1220 1195 1170	800 800 800 800 775	56,0-59,0 48,0-51,0 46,5-49,5 58,5-61,5 56,0-59,0	58.5 kW / n = 2400
1150 1150 1150 1150 1150	53,0-55,0 47,5-49,5 46,0-48,0 40,0-42,0 55,5-57,5	1170 1170 1170 1170 1170	775 800 800 800 775	54,0-57,0 48,5-51,5 41,5-44,5 29,0-32,0 56,0-59,0	61,0 kW (83 PS) / n = 2300 55,0 kW / n = 2300 53,0 kW / n = 2300 41,0 kW / n = 2300 62,6 kW (85 PS) / n = 2200
1100 1075 1075 1000 1000	45,5-47,5 55,5-57,5 47,5-49,5 55,0-57,0 47,0-49,0	1120 1090 1090 1095 1015	775 775 775 775 775	43,5-46,5 56,0-59,0 47,5-50,5 55,5-58,5 47,5-50,5	51,5 kW (70 PS) / n = 2200 61,8 kW (84 PS) / n = 2150 54,5 kW (74 PS) / n = 2150 58,1 kW (79 PS) / n = 2000 52,3 kW (71 PS) / n = 2000
950 925 900 7900 900	51,0-53,0 54,0-56,0 55,0-57,0 46,0-48,0 43,5-45,5	970 945 910 910 920	800 775 775 775 775	52,5-59,5 56,0-59,0 55,5-58,5 47,5-50,5 45,0-48,0	53,0 kW / n = 1900 54,0 kW / n = 1850 53,0 kW (72 PS) / n = 1800 47,1 kW (64 PS) / n = 1800 46,0 kW / n = 1800
750 750	55,5-57,5 47,5-49,5	760 760	-	-	44,2 kW (60 PS) / n = 1500 39,7 kW (54 PS) / n = 1500
				 	F1-11 100 4440
					Testoil-ISO 4113

	M-load stop emp 40°C (104°F)	Note	@ ;	vel delivery heracteristics = 2	Output and speed
tevimin 1	cm#/1000 strokes 2	changed to) Pev/min 3	rev/min 4	cmili 1000 strokes 5	PS /U/min.
			1		

F 5 L 912 - PES 5 A 80 D 410/3 RS 2327,2347 ICXN-power output (10% above rated output) 1500 50,5-52,5 1520 53,7 kW (73 PS) / n = 30.1052,5-54,5 56,0 kW (76 PS) / n = 2800 57,4 kW (78 PS) / n = 2650 1400 1420 1325 53,5-55,5 1340 56,0 kW (76 PS) / n = 25001250 52.5-54.5 1270 1150 58.1 kW (79 PS) / n = 2300 55.5-57.5 1170 1150 50,0-52,0 1170 53,7 kW (73 PS) / n = 230055,2 kW (75 PS) / n = 2150 1075 53,5-55,5 1090 1075 49,5-51,5 51.5 kW (70 PS) / n = 21501090 _ 1000 55,0 kW 58,0-60,0 1010 _ / n = 20001000 53,0-55,0 1015 _ 52.3 kW (71 PS) / n = 20001000 48,0-50,0 1015 48.6 kW (66 PS) / n = 200047,8 kW (65 PS) / n = 1800 900 54,5-56,5 910 900 44,9 kW (61 PS) / n = 180049,0-51,0 910 860 49,5-51,5 870 43,4 kW (59 PS) / n = 1725750 58,5-60,5 760 42,0 kW / n = 1500750 54,0-56,0 760 39,7 kW (54 PS) / n = 1500750 52,5-54,5 39,0 kW 760 / n = 1500750 47,0-49,0 760 36,0 kW / n = 150034.6 kW (47 PS) / n = 1500750 44,0-46,0 760 750 42.0-44.0 760 34,0 kW / n = 1500

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Full-load stop Test oil temp 40°C (104°F)	Rotational- speed limitat	Rotational Speed limitat Note changed to)		Output and speed
rev/mir cm3 1000 strokes		rev/min	cm³r1000 strokes	PS /U/min.

F 6 L 912 - PES 6 A 80 D 410/3 RS 2273, 2348 (F- or B power output)

1450 1400 1400 1400 1375	52,0-54,0 64,0-66,0 64,0-66,0 57,0-59,0 63,5-65,5	1470 - 1420 1420 1390	800 675 800 800 800	33,5-36,5 56,5-59,5 53,5-56,5 45,0-48,0 52,5-55,5	70,0 kW 88,3 kW (120PS) 88,3 kW (120PS) 78,0 kW 85,4 kW (116PS)	/ n = 2800 / n = 2800
1375 1325 1250 1250 1250	60,5-62,5 64,5-66,5 62,0-64,0 61,0-63,0 59,0-61,0	1390 1345 1270 1270 1270	800 800 800 800	48,5-51,5 - 52,5-55,5 50,0-53,0 48,5-51,5	81,0 kW (110PS) 87,0 kW 82,4 kW (112PS) 81,0 kW (110PS) 78,0 kW (106PS)	/ n = 2650) / n = 2500) / n = 2500
1250 1200 1200 1150 1150	58,0-60,0 59,5-61,5 55,0-57,0 58,0-60,0 56,0-58,0	1270 1220 1220 1170 1170	800 800 775	51,5-54,5 50,0-53,0 54,0-57,0 53,0-56,0	78,0 kW 79,5 kW (108PS) 74,3 kW 78,0 kW (106PS) 75,1 kW (102PS)	/ n = 2400 / n = 2300
1150 1100 1075 1075 1000	55,0-57,0 55,0-57,0 55,0-57,0 53,0-55,0 48,5-50,5	1170 1120 1090 1090 1020	800 775 775 775 800	52,0-55,0 53,5-56,5 53,5-56,5 50,0-53,0 48,5-51,5	74,0 kW 73,6 kW (100PS) 73,6 kW (100PS) 69,9 kW (95PS) 66,0 kW	/ n = 2150
900 750	47,5-49,5 50,5-52,5	920 770	600	48,0-51,0	44,0 kW 51,0 kW	/ n = 1800 / n = 1500
TCYN now	ver output (10%	cahove rated c	· nutnut)		-	

ICXN power output (10% above rated output)

					•
900 750	45,0-47,0 58,0-60,0	910 760	-	- -	54,5 kW 51,0 kW
750	54,5-56,5	760	-	-	48,0 kW
750 750	50,5-52,5 39,5-41,5	760 760	-	-	44,0 kW 39,0 kW
I5N-powe	r output (5%	above rated our	tput)		
900 750	54,4-56,5 52,0-54,0	910 760	-	-	63,0 kW 50,0 kW

 $\sqrt{(+10\%)} / n = 1800$ $\sqrt{(+10\%)} / n = 1500$ V(+10%) / n = 1500

(+10%) / n = 1500

/ n = 1500(+10%)

/ n = 1800 / n = 1500

* valid for pump combinations with RQ governor

	ult-load stop emp 40°C (104°F)	Rotational- speed limital Note changed to 3 seulmin selections (author)			Output and speedPS /U/min.
tea,win	cm²/1000 strokes		rev/min	cm3/1000 strokes	
1	2	3	4	5	
	1				

1	2	3]4	5	
F6L91	2 - PES 6 A	75 D 410/3 RS	1197	(F-or B-pow	er output)
1500 1500 1500 1400 1325	56,0-58,0 55,0-57,0 51,0-53,0 57,5-59,5 51,5-53,5	1520 1520 1520 1520 1420 1345	800 800 800 800 800	40,5-43,5 37,0-40,0 35,0-38,0 50,5-53,5 45,0-48,0	76,5 kW (104 PS) / n = 3000 73,6 kW (100 PS) / n = 3000 69,2 kW (94 PS) / n = 3000 81,0 kW (110 PS) / n = 2800 73,5 kW / n = 2650
1250 1250 1250 1250 1200 1150	53,0-55,0 51,5-53,5 49,0-51,0 51,0-53,0 50,0-52,0	1270 1270 1270 1270 1220 1170	800 800 800 750 775	51,0-54,0 50,5-53,5 48,5-51,5 52,0-55,0 52,0-55,0	76,0 kW / n = 2500 74,0 kW / n = 2500 69,0 kW / n = 2500 74,0 kW / n = 2400 74,0 kW / n = 2300
1050 1000 1000 1000 1000	42,0-44,0 50,5-52,5 46,0-48,0 44,5-46,5 36,0-38,0	1065 1015 1015 1020 1020	775 775 775 775 775 800	39,5-42,5 55,5-58,5 51,5-54,5 48,5-51,5 33,0-36,0	58,9 kW (80 PS) / n = 2100 69,9 kW (95 PS) / n = 2000 66,2 kW (90 PS) / n = 2000 62,5 kW / n = 2000 46,0 kW / n = 2000
975 950 950 950 950	48,5-50,5 51,5-53,5 45,5-47,5 42,0-44,0 37,5-39,5	985 970 970 960 970	775 775 800 775 775	52,5-55,5 55,0-58,0 48,0-51,0 42,0-45,0 37,0-40,0	66,2 kW (90 PS) / n = 1950 67,0 kW / n = 1900 61,0 kW / n = 1900 56,7 kW (77 PS) / n = 1900 50,0 kW / n = 1900
900 900 900 800 750	53,5-55,5 49,0-51,0 41,0-43,5 46,0-48,0 55,5-57,5	910 910 920 810 760	775 775 800 -	54,5-57,5 50,5-53,5 43,0-46,0	64,0 kW (87 PS) / n = 1800 60,4 kW (82 PS) / n = 1800 54,0 kW / n = 1800 50,8 kW (69 PS) / n = 1600 53,7 kW (73 PS) / n = 1500
750 750	51,0-53,0 47,0-49,0	760 760	-	-	50,8 kW (69 PS) / n = 1500 47,8 kW (65 PS) / n = 1500
i					

	emp 40°C (104°F)	Rotational- speed limitat Note changed to 3	39 ;	nel delivery Maracteristics	Output and speedPS /U/min.
rev/min	cm ⁹ r1000 strokes 2	revimin 3	rev/min 4	cm ² 1000 strokes	3 / 0/11/11.
F6L912		D 410/3 RS 119	7,132	ICXN powe	er output (10% above rated output
1500 1400 1325 1250 1150	52,5-54,5 53,5-55,5 53,5-55,5 51,0-53,0 52,5-54,5	1520 1420 1340 1270 1170	-	- - - -	64,8 kW (88 PS) / n = 3000 67,7 kW (92 PS) / n = 2800 69,2 kW (94 PS) / n = 2600 67,0 kW (91 PS) / n = 2500 69,9 kW (95 PS) / n = 2300
1150 1100 1075 1075 1000	49,0-51,0 45,0-47,0 49,5-51,5 47,0-49,0 50,5-52,5	1170 1120 1090 1090 1020	-	- - - -	64,8 kW (88 PS) / n = 2300 58,9 kW (80 PS) / n = 2200 66,2 kW (90 PS) / n = 2150 62,6 kW (85 PS) / n = 2150 63,0 kW / n = 2000
1000 900 900 875	45,0-47,0 52,0-54,0 47,5-49,5 46,5-48,5	1015 910 910 885		- - -	58,9 kW (78 PS) / n = 2000 57,4 kW (78 PS) / n = 1800 53,7 kW (73 PS) / n = 1800 51,5 kW (70 PS) / n = 1750
750 750	53,5-55,5 49,0-51,0	760 760	-	-	47,8 kW (65 PS) / n = 1500 44,9 kW (61 PS) / n = 1500

Test oil to	emp 40°C (104°F)	Rotational- speed limital Note changed to)		el delivery paracteristics	Output and speedPS /U/min.
rev/min	cm31000 strokes	rey/min 3	revimin 4	cm [®] 1000 strokes 5	
8F6L9	12 - PES 6 A	85 D 410/3 RS 2	2278 , 2	l . 348 (F-power	output)
1400 1400 1400 1325 1325	76,5-78,5 73,0-75,0 70,0-72,0 76,5-78,5 73,5-75,5	1420 1420 1420 1340 1340	800 800 800 800 800	69,5-72,5 61,5-64,5 52,5-55,5 74,5-77,5 64,5-67,5	103,0 kW (140PS) / n = 2800 95,7 kW (130PS) / n = 2800 88,3 kW (120PS) / n = 2800 103,0 kW (140PS) / n = 2650 95,7 kW (130PS) / n = 2650
1325 1325 1250 1250 1250	70,0-72,0 66,0-68,0 76,5-78,5 73,0-75,0 69,5-71,5	1340 1340 1270 1270 1270	800 800 800 800 800	56,5-59,5 47,5-50,5 77,5-80,5 69,5-72,5 60,5-63,5	88,3 kW (120PS) / n = 2650 81,0 kW (110PS) / n = 2650 103,0 kW (140PS) / n = 2500 95,7 kW (130PS) / n = 2500 88,3 kW (120PS) / n = 2500
1200 1200 1150 1150 1150	73,0-75,0 69,0-71,0 72,0-74,0 68,0-70,0 63,0-65,0	1250 1220 1170 1170 1170	800 800 775 775 775	75,5-78,5 61,5-64,5 76,5-79,5 67,5-70,5 58,5-61,5	99,4 kW (135PS) / n = 2400 88,3 kW (120PS) / n = 2400 95,7 kW (130PS) / n = 2300 88,3 kW (120PS) / n = 2300 81,0 kW (110PS) / n = 2300
1100 1075 1075 1050 1000	68,0-70,0 64,0-66,0 62,0-64,0 59,0-60,5 62,0-64,0	1120 1090 1090 1065 1015	775 775 775 775 775 775	75,5-78,5 67,5-70,5 62,5-65,5 58,5-61,5 69,5-72,5	92,0 kW (125PS) / n = 2200 84,0 kW (115PS) / n = 2150 81,0 kW (110PS) / n = 2150 76,5 kW (104PS) / n = 2100 59,6 kW (110PS) / n = 2000
1000 900 900 875 750	59,0-61,0 60,0-62,0 56,5-58,5 58,5-61,0 63,0-65,0	1015 910 910 885 760	775 775 775 775	62,5-65,5 66,5-69,5 61,5-64,5 62,5-65,5	76.5 kW (104PS) / n = 2000 73,6 kW (100PS) / n = 1800 69,9 kW (95PS) / n = 1800 69,9 kW (95PS) / n = 1750 61,1 kW (83PS) / n = 1500
750	59,0-61,0	760	-	-	59,0 kW (80PS) / n = 1500
ICXN po	wer output (10% above rated	outpu	t)	
1150 1075 1000 900 900 750	68,0-70,0 64,0-66,0 61,5-63,5 59,0-61,0 47,0-49,0 63,0-65,0	1170 1090 1015 910 910 760		-	81,0 kW (110PS) / n = 2300 77,3 kW (105PS) / n = 2150 73,6 kW (100PS) / n = 2000 66,2 kW (90PS) / n = 1800 55,9 kW (76PS) / n = 1800 55,9 kW (76PS) / n = 1500
					151150 4113

C. S	ettings for	Fuel Injection	n Pur	np with Fit	ted Governor	-29-
	ull-load slop temp 40°C (104°F)	Rotational speed limitat	@ :	uel delivery heracteristics	Output and speedPS /U/min.	
revimin 1	cm%1000 strokes	changed to) rev/min 3	rev/min	cm#1000 strokes	3 /0///////	
F3L9	12 W - PES 3	A 75 D 410/3 RS	1183	7	utput)	
1400 1400 1325 1325 1250	61,0-63,0 57,5-59,5 59,0-61,0 57,0-59,0 58,5-60,5	1420 1420 1340 1340 1270	800 800 800 800 800	53,0-56,0 50,0-53,0 53,0-56,0 50,5-53,5 54,0-57,0	36,8 kW (50 PS) / n = 34,6 kW (47 PS) / n = 35,3 kW (48 PS) / n = 33,9 kW (46 PS) / n = 42,0 kW (57 PS) / n =	2800 2650 2650
1250 1250 1250 1250 1250	56,5-58,5 53,5-55,5 51,5-53,5 49,5-51,5 41,0-43,0	1270 1270 1270 1270 1270	800 775 800 800 775	51,5-54,5 50,5-53,5 46,0-49,0 44,0-47,0 34,0-37,0	29,4 kW (40 PS) / n = 28,0 kW (38 PS) / n =	2500
1150 1150 1150 1100 1075	57,0-59,0 53,5-55,5 49,5-51,5 48,5-50,5 55,0-57,0	1170 1170 1170 1170 1120 1090	775 775 775 775 775 775	54,0-57,0 50,0-53,0 44,5-47,5 44,0-47,0 53,0-56,0	32,4 kW (44 PS) / n = 30,2 kW (41 PS) / n = 26,9 kW (36,5PS)/ n = 25,8 kW (35 PS) / n = 30,2 kW (41 PS) / n =	2300 2300 2200
1075 1075 1050 1000 1000	53,0-55,0 49,0-51,0 50,0-52,0 54,5-56,5 50,0-52,0	1090 1090 1090 1015 1015	775 775 775 775 775 775	50,0-53,0 44,5-47,5 47,0-50,0 53,5-56,5 47,5-50,5		2000
900 900 900 750 750	53,0-55,0 51,5-53,5 48,5-50,5 52,5-54,5 47,0-49,0	910 910 910 760 760	775 775 775 - -	44,0-47,0 50,5-53,5 47,0-50,0 -		1800 1800 1500
ICXN power	er output (10	0% above rated o	utput			
1150 1150 1075 1075 1000	54,5-56,5 49,5-51,5 54,0-56,0 49,5-51,5 53,0-55,0	1170 1170 1090 1090 1015	-	- - - -		2300 2150 2150
1000 900 900 750 750	49,5-51,5 52,5-54,5 48,0-50,0 54,5-56,5 51,0-53,0	1015 910 910 760 760	-	- - -	23,6 kW (32 PS) / n = 21,3 kW (29 PS) / n =	2000 1800 1800 1500 1500
750	45,4-47,5	760	-	-	17,7 kW (24 PS) / n =	1500
				Te	estoil-ISO 411	3

En

Test oil	ull-load stop lemp 40°C (104°F)	Rotational- speed limital Note changed to 3	@ :	iel delivery varacteristics	Output and speedPS /U/min.	
rev/min	cm ² /1000 strakes 2	rev/min 3	rev/min 4	cm ² 1000 strokes 5	3 / 7 !!!!!!!	
F4L912	W - PES 4 A	<u>75</u> D 410/3 RS	1183	(F power out	put)	
1400 1400 1325 1325 1300	58,5-60,5 55,0-57,0 56,0-58,0 53,5-55,5 53,0-55,0	1420 1420 1340 1340 1320	800 800 800 800 800	52,0-55,0 48,5-51,5 51,0-54,0 48,5-51,5 48,5-51,5	49,3 kW (67 PS) / n = 2800 46,4 kW (63 PS) / n = 2800 47,1 kW (64 PS) / n = 2650 44,9 kW (61 PS) / n = 2650 44,2 kW (60 PS) / n = 2600	
1250 1250 1250 1250 1250	55,0-57,0 53,5-55,5 52,5-54,5 49,5-51,5 49,5-51,5	1270 1270 1270 1270 1270	800 775 800 800 775	52,0-55,0 50,5-53,5 48,5-51,5 45,0-48,0 47,5-50,5	45,6 kW (62 PS) / n = 2500 44,0 kW / n = 2500 42,7 kW (58 PS) / n = 2500 39,7 kW (54 PS) / n = 2500 38,0 kW / n = 2500	
1250 1150 1150 1150 1150	49,0-50,0 54,5-56,5 51,5-53,5 50,5-52,5 47,5-49,5	1270 1170 1170 1170 1170	800 775 775 775 775 775	46,5-49,5 52,5-55,5 48,5-51,5 47,5-50,5 44,0-47,0	38,0 kW (51 PS) / n = 2500 43,4 kW (59 PS) / n = 2300 40,5 kW (55 PS) / n = 2300 39,4 kW (53,5PS)/ n = 2300 36,1 kW (49 PS) / n = 2300	
1150 1100 1100 1075 1075	46,5-48,5 46,5-48,5 44,5-46,5 52,0-54,0 50,5-52,5	1170 1120 1120 1090 1090	775 775 775 775 775 775	43,0-46,0 44,0-47,0 41,0-44,0 50,0-53,0 48,5-51,5	35,0 kW / n = 2300 34,6 kW (47 PS) / n = 2200 32,4 kW (44 PS) / n = 2200 39,7 kW (54 PS) / n = 2150 38,3 kW (52 PS) / n = 2150	
1075 1000 1000 1000 900	46,5-48,5 52,0-54,0 49,5-51,5 46,5-48,5 51,0-53,0	1090 1015 1015 1015 910	775 775 775 775 775 775	44,0-47,0 52,0-55,0 48,5-51,5 44,5-47,5 50,0-53,0	34,2 kW (46,5PS)/ n = 2150 38,3 kW (52 PS) / n = 2000 36,1 kW (49 PS) / n = 2000 33,1 kW (45 PS) / n = 2000 34,6 kW (47 PS) / n = 1800	
900 900 750 750 750	47,5-49,5 45,5-47,5 51,0-53,0 47,5-49,5 45,0-47,0	910 910 760 760 760	775 775 - - -	47,0-50,0 44,5-47,5 - - -	31,6 kW (43 PS) / n = 1800 30,5 kW (41,5PS)/ n = 1800 29,4 kW (40 PS) / n = 1500 27,2 kW (37 PS) / n = 1500 25,8 kW (35 PS) / n = 1500	
ICXN pow	er output (10	Os above rated o	output			
1200 1150 1150 1075 1075	48,5-50,5 52,5-54,5 47,0-49,0 51,5-53,5 47,5-49,5	1220 1170 1170 1090 1090	-	- - - -	34,2 kW (46,5PS)/ n = 2400 38,3 kW (52 PS) / n = 2300 33,1 kW (45 PS) / n = 2300 36,1 kW (49 PS) / n = 2150 32,4 kW (44 PS) / n = 2150	
1000 1000 900 900 750	51,0-53,0 47,5-49,5 51,0-53,0 46,5-48,5 50,0-52,0	1015 1015 910 910 760		- - - -	34,6 kW (47 PS) / n = 2000 31,6 kW (43 PS) / n = 2000 31,6 kW (43 PS) / n = 1800 28,7 kW (39 PS) / n = 1800 26,5 kW (36 PS) / n = 1500	
750	44,5-46,5	760	-	-	23,6 kW (32 PS) / n = 1500	

	ull-load stop lemp 40°C (104°F)	Rotational- speed irritat	30 f	el delivery aracteristics	Output and speed
tev/min	cm%1000 strokes	changed to) rev/min 3	rev/min	cm#1000 strokes	PS /U/min.
F5L91	2 W - PES 5	A <u>80</u> D 410/3 RS	2347	(F-power ou	itput)
1400 1400 1325 1325 1325	56,0-58,0 53,0-55,0 55,0-57,0 53,0-55,0 42,0-44,0	1420 1340 1340	800 800 800 800 800	48,5-51,5 50,5-53,5 48,5-51,5	58,1 kW (79 PS) / = n 2800 58,9 kW (80 PS) / = n 2650 56,7 kW (77 PS) / = n 2650
1250 1250 1250 1250 1250 1200	55,0-57,0 53,0-55,0 49,5-51,5 46,0-48,0 54,0-56,0	1270 1270 1270	800 800 800 800 800	49,5-52,5	55,2 kW (75 PS) / n = 2500 51,5 kW (70 PS) / n = 2500 46,4 kW (63 PS) / n = 2500
1200 1150 1150 1150 1150	51,5-53,5 53,5-55,5 51,0-53,0 50,0-52,0 47,5-49,5	1170 1170 1170	800 775 775 775 775	51,5-54,5 51,5-54,5	54,5 kW (74 PS) / n = 2300 52,0 kW / n = 2300 50,0 kW (68 PS) / n = 2300
1150 1150 1150 1150 1150	46,0-48,0 45,0-47,0 44,5-46,5 43,5-45,5 42,0-44,0	1170 1170	775 775 775 775 775	43,5-46,5 43,0-47,0 42,5-45,5 42,0-45,0 40,0-43,0	44,0 kW / n = 2300 43,0 kW / n = 2300 41,5 kW / n = 2300
1150 1150 1075 1075 1075	41,5-43,5 40,5-42,5 51,0-53,0 49,5-51,5 45,5-47,5	1170 1170 1090 1090 1090	775 775 775 775 775	39,0-42,0 37,0-40,0 49,5-52,5 48,0-51,0 43,5-46,5	37,0 kW / n = 2300 50,0 kW (68 PS) / n = 2150 47,8 kW (65 PS) / n = 2150
1000 1000 1000 900 900	50,5-52,5 49,0-51,0 45,0-47,0 50,0-52,0 48,5-50,5	1015 1015 1015 910 910	775 775 775 775 775	51,0-54,0 48,5-51,5 44,5-47,5 49,5-52,5 48,5-51,5	45,6 kW (62 PS) / n = 2000 41,2 kW (56 PS) / n = 2000 43,4 kW (59 PS) / n = 1800
900 750 750 750	45,0-47,0 50,5-52,5 46,5-48,5 44,5-46,5	910 760 760 760	775: - - -	44,5-47,5 - - -	38,3 kW (52 PS) / n = 1800 36,8 kW (50 PS) / n = 1500 33,9 kW (46 PS) / n = 1500 32,4 kW (44 PS) / n = 1500

ettings for	Fuel Injection			ted Governor	-32-
temp 40°C (104°F)	Note changed to)				
2	3	rev/min	cm#1000 strokes 5		
12 W - PES 5	A <u>80</u> D 410/3 RS	2347	ICXN power	output (10% above ra	ted output)
51,0-53,0 46,0-48,0 50,5-52,5 46,5-48,5 49,0-51,0	1170 1090	-	-	42,0 kW (57 PS) / 45,6 kW (62 PS) / 40,5 kW (55 PS) /	n = 2300 n = 2150 n = 2150
46,0-48,0 49,0-51,0 45,0-47,0 49,0-51,0 44,0-46,0	1015 910 910 760 760		- - - -	39,0 kW (53 PS) / 35,3 kW (48 PS) / 33,1 kW (45 PS) /	n = 1800 n = 1800 n = 1500
			Testo	il-ISO 4113	
	ull-load stop temp 40°C (104°F) cm2 1000 strokes 2 12 W - PES 5 51,0-53,0 46,0-48,0 50,5-52,5 46,5-48,5 49,0-51,0 46,0-48,0 49,0-51,0 45,0-47,0 49,0-51,0	### doc (102°F) cm2+1000 strokes 2	### Appendix The property of the property of	###-load stop Temp 40°C (10a°F) Temp 40°C (10a°F)	Note Changed to rev/min Cm#1000 strokes Cm#1000 stroke

(2b)	ull-load stop emp 40°C (104°F)	Fuel Injection Brotational Rote Rote Rote Rote Rote Rote Rote Rote	_	el delivery aracteristics	Output and spee	
rev/min	cm%1000 strokes	changed to) rev/min 3	rev/min	cm®1000 strokes	PS /U/mi	n.
F6L9	12 W - PES 6	A 75 D 410/3 RS	1197	,1326 (F-powe	er output)	
1400 1400 1325 1325 1300	56,5-58,5 53,5-55,5 55,5-57,5 53,5-55,5 53,0-55,0	1420 1340 1340	800 800 800 800 800	48,5-51,5 50,5-53,5 48,5-51,5	69,2 kW (94PS) 70,7 kW (96PS) 67,7 kW (92PS)	/ n = 2800 / n = 2650 / n = 2650
1250 1250 1250 1250 1250	55,5-57,5 51,5-53,5 48,5-50,5 46,5-48,5 43,0-45,0	1270 1270 1270	800 800 800 800 775	47,5-50,5	63,3 kW (86PS) 58,9 kW (80PS) 56,0 kW (76PS)	/ n = 2500 / n = 2500 / n = 2500 / n = 2500 / n = 2500
1200 1150 1150 1150	46,5-48,5 53,5-55,5 52,0-53,0 50,5-52,5	1170 1170	800 775 775 775 775	42,5-45,5 51,5-54,5 52,0-54,0 48,0-51,0	54,5 kW (74PS) 64,8 kW (88PS) 63,0 kW (60,4 kW (82PS)	/ n = 2300 / n = 2300
1150 1150 1150 1150 1150	49,0-51,0 47,0-49,0 46,5-48,5 43,5-45,5 42,5-44,5	1170 1170	775 775 775 775 775	47,7-50,5 46,0-49,0 43,0-46,0 39,5-42,5 39,5-42,5	53,7 kW (73PS) / 49,3 kW (67PS) /	/ n = 2300 / n = 2300
1100 1075 1075 1075 1000	43,5-45,5 51,5-53,5 49,5-51,5 45,5-47,5 51,0-53,0	1120 1090 1090 1090 1090	775 775 775 775 775	40,5-43,5 50,5-53,5 48,0-51,0 43,0-46,0 51,0-54,0	60,4 kW (82PS) , 57,4 kW (78PS) ,	/ n = 2200 / n = 2150 / n = 2150 / n = 2150 / n = 2000
1000 1000 900 900 900	49,0-51,0 45,5-47,5 50,5-52,5 48,5-50,5 45,5-47,5	1015 1015 910 910 920	775 775 775 775 775	48,5-51,5 44,5-47,5 50,5-53,5 48,0-51,0 45,5-48,5	49,3 kW (67PS) / 52,3 kW (71PS) / 50,0 kW (68PS) /	n = 1800
900 900 750 750 750	45,0-47,0 42,0-44,0 50,5-52,5 45,5-47,5 44,5-46,5	910 920 760 760 760	775 775 - - -	44,5-47,5 41,0-44,0 - - -	45,6 kW (62PS) / 42,5 kW / 44,2 kW (60PS) / 39,7 kW (54PS) / 38,3 kW (52PS) /	/ n = 1800 / n = 1500 / n = 1500
				Test	toil-ISO 411	3

Test oil t	emp 40°C (104°F)	Rotational- speed limital Note Changed to) tev/min		uel delivery haracteristics cm*1000 strokes	Output and speedPS /U/min.
1	2	3	4	5	
				1	

		cm ² r1000 strokes	Note changed to 3 rev/min 3	rev/min	cm#1000 strokes	PS /U/min.
	F6L91	2W - PES 6 A	75 D 410/3 RS	1197,1	326 ICXN	power output (10% above rated output)
1150 1150 1075 1075 1000) 5	51,5-53,5 46,5-48,5 50,5-52,5 46,5-48,5 50,0-52,0	1170 1170 1090 1090 1015		- - - -	57,4 kW (78 PS) / n = 2300 50,0 kW (68 PS) / n = 2300 54,5 kW (74 PS) / n = 2150 48,6 kW (66 PS) / n = 2150 51,5 kW (70 PS) / n = 2000
1000 900 900 750 • 750)))	46,5-48,5 49,5-51,5 45,5-47,5 49,5-51,5 44,5-46,5	1015 910 910 760 760		- - -	47,1 kW (64 PS) / n = 2000 47,1 kW (64 PS) / n = 1800 42,7 kW (58 PS) / n = 1800 39,7 kW (54 PS) / n = 1500 35,3 kW (48 PS) / n = 1500
					·	
						•
					İ	

WPP 001/4 IHC 9,4a

2. Edition

PES 8 P 100 A 921/5 RS 286 RQV 325-1250 PA 445 KR

supersedes

5.83 IHC

company: engine:

DVT 573 B

1-8-4-2-7-3-6-5 je $45^{\circ} \pm 0,5^{\circ} (\pm 0,75^{\circ})$ Values only apply to test nozzle-and-holder assembly 1 688 901 017

Komb.-Nr.

and fuel-injection test tubing 9 681 230 713

0 402 058 045

Suction-gallery pressure 2,8 bar
All test apecifications are valid for Bosch Fuel Injection Pump Test Benches and Testers

A. Fuel Injection Pump Settings
2,7-2,8
Port closing at prestroke

mm (from BDC)

Port Closing at pres	HONG	(2.65-2.85)						
Rotational speed rev/min	Control rod travel mm 2	Fuel delivery cm ³ /100 strokes 3	Difference cm ³ / 100 strokes 4	Control rod travel mm 2	Fuel delivery cm ³ /100 strokes 3	Spring pre-tensioning (torque-control valve) mm 6		
1250	9,6-9,7	10,9-11,1	0,4					
325	5,0-5,1	1,7-2,3	0,6					

Adjust the fuel delivery from each outlet according to the values in [

B. Governor Settings

Upper rated s	peed		Intermediate	rated spe	eed	Lower rated speed Sliding st			leeve travel	
deflection	rev/min Control rod travel mm	Control rod travel mm rev/min 2a	Degree of deflection of control lever	rev/min S	Control rod travel mm 4	Degree of deflection of control lever 7	rev/min 8	Control rod travel mm 3	rev/min	mm 11
ca.60	8,6 4.0 1640	1290-1300 1375-1405 0 - 1,0	-	-	-	ca.11	100 325	6,2-7,5 5,5-6,2		
		o				390-450 3	470-5	30		

Torque control travel a =

C. Settings for Fuel Injection Pump with Fitted Governor

Full-load delivery Control-rod stop Test oil temp. 40°C (104°F)		1-rod stop 1 temp. 40°C (104°F) 2 Immitation intermediate speed 5b			Starting idle switchir	0	Torque- travel	Control od
rev/min	cm³/1000 strokes	rev/min 4a)	rav/min	cm ³ /1000 strokes	rev/min	cm ³ /1000 strokes	rev/min	mm
1	2	3	4	5	6	7	8	9
LDA 1250	0,8 bar 109,0-111,0 (107,0-113,0)	1290-1300*	LDA 900	0,8 bar 115,0-121,0 (113,0-123,0)	100 325	min.170,0 17,0-23,0	900	9,5+0,1 10,0+0,1 9,8+0,1
			LDA 800	0 bar 73,0-81,0 (71,0-83,0)				

Checking values in brackets

* 1 mm less control rod travel than col. 2

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BOSCH

Test Specifications Fuel Injection Pumps (1A) and Governors

VDT-WPP 001/4

7. Edition

En

PES 4 A 85 D 420 LS 2459 EP/RSV 375-1100 A 2 B 649 DR

16.9.70,17.2.71 supersedes 29.4.71 comparGase 15.2.72

engiAS01BD

20.7.72

Test with case overflow valve and regulator in accordance with special setting.

24.11.72

All test specifications are valid for Bosch Fuel Injection Pump Test Benches and Testers

A. Fuel Injection Pump Settings

Port closing at prestroke

mm (from BDC)

Rotational speed rev/min 1	Control rod travel mm 2	Fuel delivery cm ⁹ /100 strokes 3	Difference cm³/ 100 strokes 4	Control rod travel mm	Fuel delivery cm ² /100 strokes 3	Spring pre-tensioning (torque-control valve) mm
1100	11,5	a,3-7,4	0,3		*	
375	7,2	1,52-2,12				
		_				

Adjust the fuel delivery from each outlet according to the values in [

B. Governor Settings

1 Uppe	Upper rated speed rev/min			diate rated	speed	(4)	Lower	rated speed	(3) To	rque control
Degree of deflection of control lever	travel	travel mm rev/min	4	5	6	Control- lever deflection in degrees	rev/min	travel mm	rev/min	travel
ca.43	1140 1150 1160	11,2-11,8 10,4-10,8 6,0-7,4	witho	ut aux	<u> </u>	ca.22	375 150	7,2 19 - 21	1160	0
2 a)	1220 1300	2,2-4,4 0,3-1	Sp: III	9			375 600 300 480	7,0-7,4 0 - 1 10,7-12,5 1,6- 4,4	900 500	0,3-0,4

The numbers denote the sequence of the tests

C. Settings for Fuel Injection Pump with Fitted Governor

	کرood sto	6 Rotational- speed limitat		Starting fuel delivery characteristics					
Test oil to	emp 40°C (104°F) cm³/1000 strokes 2	Note changed to) rev/min 3	rev/min	cm ⁹ /1000 strokes 5	rev/min	cm ³ 1000 strakes 7		Control rod travel mm 9	
1100	72,5-74,5 (71,5-75,5)	1140-1155* (1135-1160)	750 650	74,5-78,5 max. 77,5	100	124,0- 134,0	075		
			1200	4,5-10,5			375	15,2- 21,2	

Checking values in brackets

* 1 mm less control rod travel than col. 2

8.74

Test Specifications Fuel Injection Pumps (A) and Governors

40

VDT-WPP 001/4

6. Edition

En

PES 6 P 100 A 720 RS 1010

EP/RSV 400-1050 P2/370 D

supersedes 12.74(4)

company John Deere engine 6531 A

All test specifications are valid for Bosch Fuel Injection Pump Test Benches and Testers

A. Fuel Injection Pump Settings

Port closing at prestroke 2,4 + 0,1

mm (from BDC)

Rotational speed rev/min 1	Control rod travel	Fuel delivery cm ³ /100 strokes 3	Difference cm³/ 100 strokes	Control rod travel mm	Fuel delivery cm ⁹ /100 strokes	Spring pre-tensioning (torque-control valve) mm
1050	12,8	14,8-15,0	0,3			
400	6,7	1,9-2,5	0,3			

Adjust the fuel delivery from each outlet according to the values in

B. Governor Settings

Degree of deflection of control lever	r rated speed Control rod travei mm	rev/min Control rod travel mm rev/min 3	Intermed	diate rated	speed	Control- lever deflection in degrees 7	Lower rev/min 8	rated speed Control rod travet mm 9	11 9 1	rque control Control rod travel mm
ca.43	1050 1100 1150 1220 1260	15,6-16,4 6,2-9,6 3,8-5,2 0,3-2,6 0,3-1,5	witho sprin	ut aux	ciliar —	ca.19 y	400 200 750 350 600	7,2 19 - 21 0 -1,5 11,0-14,0 1,4- 4,2		0 0,8-1,0 0,8-1,0

The numbers denote the sequence of the tests

C. Settings for Fuel Injection Pump with Fitted Governor

	ult-load stop	6 Rotational- speed limitat		iel delivery paracteristics	Starting I	luel delivery 5	4a Idle stop	
rev/min	emp 40°C (104°F) cm³/1000 strokes 2	Note changed to) rev/min 3	rev/min	cm\$/1000 strokes	rev/min	cm ² /1000 strokes	rev/min	Control rod travel mm
0,8 1050	bar 148,0-150,0 (146,0-152,0)	1085-1095 (1080-1100)	750 XX 0 550	0,8 164,5-167,5 (163,0-169,0) bar 108,0-116,0	100 400	160,0-190,0 19,0-25,0		

Checking values in brackets

1 mm less control rod travel than col. 2

8.75

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Geschaftsbereich KH. Kundendienst. Kfz-Ausrustung.

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Test Specifications Fuel Injection Pumps (A) and Governors

40

VDT-WPP 001/4

7. Edition

En

PES 4 A 85 C 420 LS 2263 EP/RSV 375-1100 A 2 B 579 DR

supersedes 16.9./0,17.2./1 Case 29.4.71

Test with case overflow valve and regulator in accordance with special setting.

engine A301 BD 15.2.72 20.7.72 24.11.72

All test specifications are valid for Bosch Fuel Injection Pump Test Benches and Testers

A. Fuel Injection Pump Settings

Port closing at prestroke

mm (from BDC)

Rotational speed rev/min	Control rod travel	Fuel delivery Difference cm³/ cm³/100 strokes Difference cm³/		Control rod travel	Fuel delivery	Spring pre-tensioning (torque-control valve)
1	2	3	4	2	3	6
1000	9	4,15 - 4,55	0,4			
	6 12	1,15 - 1,95 7,25 - 8,05				
200	6	0,95 - 1,75				

Adjust the fuel delivery from each outlet according to the values in

B. Governor Settings

Degree of deflection of control lever	r rated speed Control rod travel mm	Control rod travet mm rev/min	Interme	diate rated	speed	Control lever deflection in degrees 7	Lower rev/min 8	rated speed Control rod travel mm	rev/min	rque control Control rod travel mm
ca.43	1120 1160 1210 1140 1200 1300	11,4 7,4 2,2 11,2-11,8 4,5-5,8 0,3-1	sprin	auxili		ca.22	375 150 375 450 600	7,2 19 - 21 6,9-7,5 3,6-5,2 0-1		0 0,3-0,5 0,4-0,7

The numbers denote the sequence of the tests

C. Settings for Fuel Injection Pump with Fitted Governor

	ill-load stop	6 Rotational- speed limitat		iel delivery paracteristics	Starting 1	uel delivery 5	4a Idle stop	
	emp 40°C (104°F) cm ⁹ /1000 strokes 2	Note changed to) rev/min 3	rev/min	cm ³ /1000 strokes	rev/min	cm³-1000 strokes	rev/min	Control rod travel mm
1100	73,5 - 75,5	1140-1155*	750	76,5 - 79,5	100	124,0 - 134,0		
			650	max. 78,0	l	,		
			1200	6,5 -14,5			375	15,5- 19,5

Checking values in brackets

* 1 mm less control rod travel than col. 2

8.74



Test Specifications Fuel Injection Pumps (A) and Governors

40

VDT-WPP 001/4 IHC 2,29

PES 4 M 65 A 420 LS 35 X EP/RSV 250-950 M1A 103D, 105D supersedes LS 35 W -1000 M1A 103D, 105D company IHC LS 35 T LS 35 S DD 148 DD 132

All test specifications are valid for Bosch Fuel Injection Pump Test Benches and Testers

A. Fuel Injection Pump Settings

Port closing at prestroke

1,7 + 0,1

mm (from BDC)

Rutational speed rev/min 1	Control rod travel mm 2	Fuel delivery cm ³ /100 strokes 3	Difference cm³/ 100 strokes 4	Control rod travel mm	Fuel delivery cm\$100 strokes 3	Spring pre-tensioning (torque-confrol valve) mm
1000	12	3,2-3,7	0,3			
200	9 18 9	1,5-2,3 6,7-7,5 0,6-1,3		·		

Adjust the fuel delivery from each outlet according to the values in

B. Governor Settings

EP/RSV 250-950 M 1 A 105 D

	r rated speed Control rod travel mm 2		Intermed	liate rated	speed	Control- lever deflection in degrees 7	Lower rev/min 8	rated speed Control rod travel mm	3 To	rque control Control rod travel mm
ca.58	950 1000 1050	16 12,4 8,2	witho sprin		iliar	ca.31	250 100	9	930 700 500	0 0,3-0,5 0,7-0,9
29	1100	9,4-12 4,2-6,8 1,4-4,8	with a	- auxili	ary		250 400 500 750	8,7-9,3 5,5-7,4 1,8-5,6 0 - 1	300	

The numbers denote the sequence of the tests

C. Settings for Fuel Injection Pump with Fitted Governor

9	emp 40°C (104°F)	Rotational- speed limitat			Starting I	fuel delivery 5	4a Idle stop	
rev/min 1	cm ³ /1000 strokes 2	Note changed to) rev/min 3	rev/min 4	cm ² /1000 strokes 5	tev/min	cm³/1000 strokes	rev/min 8	Control ro travel mm
930	39,5-41,5	960	500 700	42,0-45,0 40,0-42,0				

Checking values in brackets

* 1 mm less control rod travel than cot 2

12.64

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Upper rated s	peed		Intermediate	rated spe	eed	Lower rated	speed		Toral	e-contro
deflection		travel	Degree of deflection of control		Control rod travel	Degree of deflection of control		Control rod travel	trave	
lever		rev/min (2a		rev/min	mm 4		rev/min	mm ③	rev/min	mm
1	2	3	4	5	6	7	8	9	10	11
ca.58	950 1000	16 12,4	without	auxil	iary	ca.31	250 100	9 19-19,5	4	0 0,6-0,8
	1050 1020 1100	8 9 -11,6 4 - 6.5	spring with au	, il in u			250 400 500	8,7-9,3 5,5-7,3	500	1,0-1,2
	1150 1250	4 - 6,5 1 - 4,4 0 - 1	spring	lilar	y 	(3a)	700	1,8-5,6 0 - 1		

Torque control travel a =

C. Settings for Fuel Injection Pump with Fitted Governor

Full-load de Control-ros Test oil ten	t stop o	Rotational-speed (2b) Ilmitation Intermediate speed	Fuel deln high idle s	very characteristics (5a) speed (5b)	Starting Idle switchin		Torque- travel	Control rod
rev/min	cm ³ /1000 strokes	rev/min 4a	rev/min	cm ³ /1000 strokes	rev/min	cm3/1000 strokes	rev/min	travel mm
1	2	3	4	5	6	7	8	9
X 930	32,0-34,0	960	500 700	36,5-39,5 34,5-36,5				

Checking values in brackets

* 1 mm less control rod travel than col 2

B. Governor Settings

EP/RSV 250-1000 M 1 A 103 D

Upper rated :						Lower rated	1 speed		Torq	ue-contro
Degree of deflection of control	rev/min Control rod travel	Control rod (1a)	Degree of deflection of control	ı	Control rod travel	Degree of deflection of control	l	Control rod	trav	el D
lever		rev/min (2a)	lever	rev/min	mm (4)	lever	rev/min	mm ③	rev/min	m m
1	2	3	4	5	6	7	8	9	10	11
ca.62	1000 1050 1100 1080 1150 1200 1300	16 12,6 8,4 8,5-11,2 4,2-6,8 1,2-4,8 0 - 1	without spring with au spring			ca.32	250 100 250 400 500 720	9 19-19,5 8,7- 9,3 5,6- 7,4 1,8- 5,6 0 - 1	500	0 0,3-0,5 1,0-1,2

Torque control travel a =

C. Settings for Fuel Injection Pump with Fitted Governor

Full-load de Control-roo Test oil terr		Rotational-speed 2b ilmitation intermediate speed 4a	Fuel deln high idle :	rery characteristics 5a poeed 5b	Starting Idle switchin	fuel delivery 6	Torque- travel	Control rod
rev/min	cm ³ /1000 strokes	rev/min	rev/min	cm ³ /1000 strokes	rev/min	cm ³ /1000 strokes	rev/min	travel mm
1	2	3	4	5	6	7	8	9
S 980	32,0-34,0	1010	500 800	36,5-39,5 34,5-36,5				

Checking values in brackets

* 1 mm less control rod travel than col. 2

Testoil-ISO 4113

B. Governor Settings

						1				aantmal
Upper rated s	peed		Intermediate	rated spe	ed	Lower rated	speed			-control
Degree of deflection of control lever	rev/miri Control rod travel mm	mm -	Degree of deflection of control lever	_	Control rod travel mm 4	Degree of deflection of control lever 7	rev/min 8	Control rod travel mm 3 9	ravel	mm 11
ca.62	1000 1050 1100 1080 1150 1200 1300	16 12,6 8,4 8,5-11 4,2-6,8 1,2-4,8 0 - 1	without spring with au spring	auxi	liary	ca.32	250 100 250 400 500 700	9 19- 19,5 8,7- 9,3 5,6-7,4 2 -5,6 0 - 1		0 0,3-0,5 0,7-0,9

Torque control travel a =

C. Settings for Fuel Injection Pump with Fitted Governor

Full-load d Control-ro Test oil ten		Rotational-speed 20 fimitation intermediate speed	Fuel deliv character high idle s	ristics	Starting Idle switchin		Torque- travel	Control 5 Control rod
rev/min	cm ⁹ /1000 strokes	rev/min (4a)	rev/min 4	cm ³ /1000 strokes 5	ev/min	cm³/1000 strokes 7	rev/min 8	
T 980	39,5-41,5	1010	500 800	42,0-45,0 40,0-42,0				

Checking values in brackets

* 1 mm less control rod travel than co: 2

D. Adjustment Test for Manifold Pressure Compensator

Test at n =

rev/min decreasing pressure ~ in bar gauge pressure

Pump/governor	•	diminution Control rod travel- difference mm
	·	,
		<u> </u>

Test Specifications Fuel Injection Pumps (1A) and Governors

WPP 001/4

1. Edition

PES 6 A 100 D 410 RS3025Z EP/RSV 400-1100 A2B765DL

RS 3025 EP/RSV 400-1100 A2B766DL RS 3025 EP/RSV 400-1100 A7B767 L supersedes

engine

Inlet pressure 1.5 bar

John Deere company 6404 A

Test-pressure line 6 x 2 x 600

Manifold-pressure compensator (LDA) adjustment page 3! All test specifications are valid for Bosch Fuel Injection Pump Test Benches and Testers

A. Fuel Injection Pump Settings

Port closing at prestroke 2,0+0,1(+0,15)

mm (from BDC)

Port closing mark 14 ° after port closing.

Rotational speed	Control rod	Fuel delivery	Difference	Control rod travel	Fuel delivery	Spring pre-tensioning (torque-control valve)
rev/min	mm (2)	cm³/100 strokes	cm ³ / 100 strokes	mm	cm³/100 strokes	mm
1	2	3	4	2	3	6
1000	9	7,6 - 8,3	0,5			
	6	3,2 - 4,2]			
	12	12,2 -13,5				
200	9	4,0 - 5,2				
			1			

Adjust the fuel delivery from each outlet according to the values in E

400-1100 A2B765DL mit 3025Z

B. Governor Settings

	r rated speed Control rod travel mm		Interme	ediate rated	speed	Control- tever deflection in degrees 7	Lawer rev/min 8	rated speed Control rod travel mm 9	3 To	rque control Control rod travel inm
ca.43	1060 1145 1200	16,0 9,5 4,5	with	out aux	ciliar	ca.21 y spring		6,3 19 - 21 6,0-6,6	1100 500	0
28	1100 1200 1250	ca.10,5 ca. 4,5 0,3-1,0					450 560	3,7-4,8		

The numbers denote the sequence of the tests

C. Settings for Fuel Injection Pump with Fitted Governor

Test oil temp 40°C (104°F) rev/min cm³/1000 strokes		Rotational- speed limitat Note changed to 1 rev/min	14.3/21	el delivery aracteristics cm ⁹ /1000 strokes	Starting f Idle rev/min	uel delivery 5	Control root travel	
1	2	3	4	5	6	7 .	8	9
	0,8 bar 107,5-109,5	1140-1150* (1135-1155)	LDA 750 LDA 550	0,8 bar 118,5-121,5 0 bar 53,0-59,0	100 400 1200	156,0-176,0 11,5-15,5 20,5-26,5	400	6,3
inrea	se by \cdot 2,0 cm 3	!)						

Checking values in brackets

* 1 mm less control rod travel than col. 2

9.76

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B. Governor Settings

	rated speed Control rod travel mm		Intermed	liate rated	speed	Control- lever deflection in degrees 7		rated speed Control rod travel mm 9		rque control Control rod travel mm
ca.43	1060 1145 1200	16,0 9,3 4,3	with	out au	xilia	ca.21 ry sprin	400 200 400	19 - 21 6,0-6,6	1100 500	0 1,7-1,9
29	1100 1200 1270	ca.10,4 ca. 4,3 0,3-1,0	with	auxil	liary	spring	500 580	0,4-3,2		

C. Settings for Fuel Injection Pump with Fitted Governor

	ill-load stop	Rotational- speed limitat		net delivery paracteristics	Starting 1	uel delivery 5	48 Idle stop	
rev/min	emp 40°C (104°F) cm³/1000 strokes 2	Note: changed to) rev/min 3		cm ³ /1000 strokes 5	rev/min	cm³/1000 strokes 7	rev/min 8	travel mm 9
LDA 1100	0,8 bar 107,0-109,0	1140-1150* (1135-1155)	LDA 500	0,8 bar 122,5-125,5	100 400 1200	156,0-176,0 11,5-15,5 18,5-28,5	400	6,3
(inre	ease by · 2,0 cm	₹!)						

Checking values in brackets

Testoil-ISO 4113

* 1 mm less control rod travel than col. 2

B. Governor Settings

1 Uppe	r rated speed		Interme	diate rated	speed	(4)	Lower	rated speed	Torque control		
Degree of deflection of control	Control rod travel mm	travel				Control- lever deflection	rev/min	travel mm	rev/min	travel mm	
lever 1	2	3	4	5	6	in degrees 7	8	9	10	11	
ca.72	1070	16,0				ca.30	400	6,3			
	1100 1150	11,6 4,2	witho	out aux	kilian	y sprin	150 400	19 - 21 6,0-6,6			
29	1080 1120 1180	ca. 10,6 7,0- 9,6 0,3- 1,0	with	auxil	iary s	pring	450 500	1,7-3,7			

C. Settings for Fuel Injection Pump with Fitted Governor

	II-load stop emp. 40°C (104°F)	Rotational- speed limitat.	39 Fu	el delivery aractenstics	Starting f	uel delivery 5	Idle stop Control rod	
rev/min	cm ³ /1000 strokes 2	changed to) rev/min 3	rev/min 4	cm³/1000 strokes 5	rev/min	cm ³ /1000 strokes 7	rev/min 8	mm 9
1080	112.0-114,0	1110-1120*			100	156,0-176,0	400	6,3
		(1105-1125)			400	11,5-15,5		
				·	1150	11,5-21,5		
(inr	ease by 2,0 cm³)							

Checking values in brackets En

* 1 mm less control rod travel than col 2

D. Adjustment Test for Manifold Pressure Compensator

Test at n =

rev/min decreasing pressure - in bar gauge pressure

	C	רי
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1	Ç	5
		ō
ı	D	5
1	-	-

Pump/governor	Setting	Measurement	diminution Control rod travel- difference
	Gauge pressure = bar	Gauge pressure = bar	mm (1)
3025Z with 765DL	0,62	0,11	-0,1-0,2 -3,0-3,3
3025 with 766DL	0,55	0,11	-0,1-0,2 -2,6-2,8
3025 with 767 L	without	LDA	
Switching point (hydr. measurement)	max. 0,76	mind. 0,48	10 - 11 mm RW 19 - 21 mm RW

Notes

(1) when n =

rev/min and gauge pressure =

bar (* maximum full-load control rod travel)

Preliminary adjustment, dimension H = 21.8 mm

Test Specifications Fuel Injection Pumps ① and Governors

WPP 001/4 VOL 10,0 f 4. Edition

PE 6 P 110 A 320 RS 273, Z RQV 250-1200 PA 238/2R

Port-closing test with/without ROBO diaphragm

8.77 supersedes VOLVO company:

TD 100 B engine:

All test specifications are valid for Bosch Fuel Injection Pump Test Benches and Testers

A. Fuel Injection Pump Settings

Port closing at prestroke

 \odot

2,60-2,70 (2.55-2.75) mm (from BDC)

Rotational speed	Control rod travel	Fuel delivery cm³/100 strokes	Difference cm ³ / 100 strokes 4	Control rod travel mm 2	Fuel delivery cm ³ /190 strokes 3	Spring pre-tensioning (torque-control valve) mm 8
1000	12	18,2 - 18,9	0,6			2,5 ⁺ 0,1** (max. 2,2-2,9)
600	15	27,5 - 29,4				
200 ** In the	9 case of	7,9 - 9,1 greater dispers	on alter	the deli	very-valve spr	ng pre-tension

Adjust the fuel delivery from each outlet according to the values in

B. Governor Settings

273 with 1200

Upper of Degree deflect of continues	of on		Control rod travel mm rev/min	•	Intermediate Degree of deflection of control lever	rated sports rev/min	Control rod	Lower rated Degree of deflection of control lever 7	rev/min	Control rod travel	Sliding sl rev/min 10	mm
ca.	45	1560	15,0-18 0 15,0-18 8,2-13 0 - 7	,2				ca.13	100 200 300 400 510	8,8-11,0 7,1- 9,9 3,8- 6,8 0 - 3,6	600 1290	1,4-2,0 4,4-4,8 8,2
		1510	0					3a				

Torque control travel a =

C. Settings for Fuel Injection Pump with Fitted Governor

Full-load de Control-roc	U.1. T. J.	Rotational-speed 20 timitation intermediate speed	Fuel deliv high idle s	peed Sb	switchin	ng point	travel	Control 5 Control ro
		rev/min 49	rey/min	cm ³ /1000 strokes 5	rev/min 6	cmil/1000 strokes	rev/min 8	9
LDA	0,85 bar		LDA	0 bar	100	20,5-21,0 mm RW		
700	158,5-161,5 (156,5-163,5)	1230-1240*	700	113,5-116,5 (115,5-118,5 di	250 pers			
								./

ching values in brackets

n min less control rad travel than cal 2

Upper rated	speed		Intermediate	rated spe	eed	Lower rated	speed		Shdinos	leeve travei
Degree of deflection of control lever	rev/min Control rod travel mm	Control rod (1/2 mm rev/min (2/2 mm)	Degree of deflection of control lever	rev/min	Control rod travel mm 4	Degree of deflection of control lever	rev/min	Control rod travel mm 3	rev/min	mm 11
ca. 50	1290 1560 1200	15,0-18,0 0 15,0-18,0				ca.13	100 200 300	8,8-11,0 7,1- 9,9 3,8-6,8		1,4-2, 4,4-4, 8,2
ca. 43	1300 1400 1510	8,2-13, 0 - 7,4	3				400 510	0 - 3,6		•,-
						39				

Torque control travel a =

mm

C. Settings for Fuel Injection Pump with Fitter Governor

Full-load d Control-ro- Test oil ten		Rotational-speed (2b) limitation intermediate speed	Fuel delicharacte	ristics	Starting Idle switchin	fuel delivery 6	Torque- travel	Control rod
rev/min	cm ³ /1000 strokes	rev/min (4a)	rev/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	rev/min	mm
1	2	3	4	5	6	7	8	9
LDA 700	0,85 bar 135,5-138,5 (133,5-140,5)	1230-1240*	LDA 700	0 bar 113,5-116,5 (111,5-118,5)	250	20,5-21,0 mm RW 11-15 sion max.2,5	r*	

Checking values in brackets

D. Adjustment Test for Manifold Pressure Compensator

Testatn =

rev/min decreasing pressure – in bar gauge pressure

Pump/governor	Setting Gauge pressure = bar	Measurement Gauge pressure = bar	diminution Control rod travel- difference mm
273 with 1200	0,52 - 0,54	0,11 - 0,19	
273 Z with 1200	0,40 - 0,42	0,11 - 0,19	~~

^{* 1} mm less control rod travel than co: 2

Test Specifications Fuel Injection Pumps ① and Governors

WPP 001/4 ALO 11,0 a
1. Edition

PES 6 P 110 A 320 RS 211

RQV 300 1000 PA 217 KR

0 402 046 083

1 - 5 - 3 - 6 - 2 - 4

Calibrating nozzle-and-holder assembly 0 681 343 009 Test-pressure line 9 681 230 704 supersedes
Allis-Chalmers
11000
engine

All test specifications are valid for Bosch Fuel Injection Pump Test Benches and Testers

A. Fuel Injection Pump Settings

Port closing at prestroks

2,8+0,1

mm (from BDC)

Port closing at pres						
Rotational speed	Control rod travel	Fuel delivery	Difference cm ³ /	Control rod travel	Fuel delivery	Spring pre-tensioning (torque-control valve)
rev/min	шш	cm ³ /100 strokes	100 strokes	mm	cm ³ /100 strokes	mm
1	2	3	4	2	3	6
1000	12	160-168				
600	9	85- 91				
	12	152-161	1			
	15	215-233				
200	. 9	68- 81	1		1	
i	J		l			<u> </u>

Adjust the fuel delivery from each outlet according to the values in

B. Governor Settings

Upper rated	speed		Intermediate	rated sp	oo d	Lower rated	speed	•	Sliding a	leeve travel
Degree of deflection	rev/min Control	Control rod travel	Degree of deflection		Control rod travel	Degree of deflection		Control rod travel		0
of control lever	rod travel	mm rev/min (2	of control lever	rev/min	mm 4	of control lever	rev/min	mrn 3	rev/min	mm
1	2	3	4	5	6	7	8	¥.	10	11
66°		0,7-7,	5			10°	250 300 350 400 550	6,4-8,0 4,8-7,0 3,0-5,2 2,2-3,8		

Torque control travel a =

Testoil-ISO 4113

ma

C. Settings for Fuei Injection Pump with Fitted Governor

Full-load d Control-ro Test oil ter		Rotational-speed 20 limitation intermediate speed	Fuel delic high idle s	rery characteristics 5a peed 5b	Starting Idle switchin	. 0	Torque- travel	Control rod
rev/min	cm³/1000 strokes	rev/min 40	rev/min	cm ³ /1000 strokes	rev/min	cm ² /1000 strokes	rev/min	
1	2	3	4	5	6	7	8	9

Checking values in brackets

* 1 mm less control rod travel then cel. 2

Full-load of Control-ro		Breakaway		Fuel deli high idle	very characteristics (58) speed (50)	Starting idle switching	fuel delivery 6	LOW I	11e speed 5
rev/min	cm ³ /1000 strokes	rev/min	④	rev/min	cm ³ /1000 strokes	rev/min	cm ³ /1000 strokes	rev/mi	travel n mm
1	2	3		4	5	6	7	8	9
AC-Nr	4 392 715	•							
	187,0-193,0	1070		900 700	174,0-180,0 175,0-181,0	100	130,0-170,0	300	19,0-25,
AC-Nr.	4 392 717								
	224,0-230,0	1070		800	185,0-191,0	100	130,0-170,0	300	19,0-25,
	4 392 719								
	200,0-206,0	1070		900	190,0-196,0	100	130,0-170,0	300	19,0-25
1050	200,0 200,0	1070		700	214,0-220,0				,
AC-Nr.	. 4 392 721								
1050	242,0-248,0	1070		900 700	220,0-226,0 230,0-236,0	100	130,0-170,0	300	19,0-25
AC-Nr.	. 4 392 723								
750	244,0-250,0	770		700	253,0-259,0	100	130,0-170,0	300	19,0-25
AC-Nr.	. 4 392 725								
800	239,0-245,0	820		600	248,0-254,0	100	130,0-170,0	300	19,0-25
	•								
	. 4 392 727 232,0-238,0	920		700	253,0-259,0	100	130,0-170,0	300	19.0-25
900	-	720		,,,,	200,0 200,0	, , ,			•
	. 4 392 729	4000		000	220 0.226 0	100	130,0-170,0	300	10 0-25
1000	212,0-218,0	1020		800	230,0-236,0	100	130,0-170,0	200	19,0-23
AC-Nr	. 4 392 731								07 0 00
900	288,0-294,0	920		700	287,0-293,0	100	130,0-170,0	300	27,0-33
AC-Nr	. 4 392 735								
1050	239,0-245,0	1070		900	233,0-239,0	100	130,0-170,0	300	19,0-25
				700	273,0-279,0				
AC-Nr	. 4 392 737							000	40.0.05
1000	215,0-221,0	1020		800 600	197,0-203,0 220,0-226,0	100	130,0-170,0	300	19,0-25
AC-Nr	. 4 392 739								
1050	207,0-213,0	1070		900	195,0-201,0	100	130,0-170,0	300	19,0-25
				700	225,0-231,0				
AC-Nr	. 4 392 741								
1050	213,0-219,0	1070		900 700	202,0-208,0 230,0-236,0	100	130,0-170,0)	
Checking	. 4 392 743 values in brackets					4.55	* 1 mm less con		
1050	220,0-226,0	1070		900 700	210,0-216,0 243,0-249,0	100	130,0-170,0	300	19,0-25

Testoil-ISO 4113

B24

Full-load delivery Control-rod stop rest oil temp. 40°C (104°F) (2)	Breakaway	(2b) Fuel deli high idle	very characteristics (58 speed (5b)	Idle	fuel delivery 6	Low idle speed
ev/min cm³/1000 strokes	rev/min 3	rev/min	cm³/1000 strokes		cm ³ /1000 strokes 7	rév/min mm 8 9
AC-Nr. 4 392 747 1050 227,0-233,0	1070	900 700	208,0-214,0 247,0-253,0	100	130,0-170,0	300 19,0-2
AC-Nr. 4 392 749 1050 230,0-234,0	1070		2)	100	130,0-170,0	300 19,0-2
AC-Nr. 4 392 750 1050 230,0-234,0	1070		•	100	130,0-170,0	300 19,0-2
AC-Nr. 4 392 768 800 123,0-133,0	820	600	132,0-142,0	100	130,0-170,0	300 19,0-2
AC-Nr. 4 392 775/77 375 162,0-164,0	6 890	600	140,0-144,0	100	130,0-170,0	300 19,0-2
AC-Nr. 4 392 777 950 205,0-207,0	970	700	195,0-199,0	100	130,0-170,0	300 19,0-2
AC-Nr. 4 392 778 950 208,0-214,0	990	750	196,0-202,0	100	130,0-170,0	300 21,0-2
AC-Nr. 4 392 779 1025 190,0-200,0	1030-40	1000 900	191,0-201,0 178,0-188,0	100	130,0-170,0	300 19,0-2
AC-Nr. 4 392 781 1025 228,0-238,0	1050-60	900 700	205,0-215,0 207,0-217,0	100	130,0-170,0	300 19,0-2
AC-Nr. 4 392 953 940 185,0-195,0	955~65			100	130,0-170,0	300 19,0-2
AC-Nr. 4 393 095 1050 211,0-221,0	1060-80	900 700	210,0-220,0 238,0-248,0	100	130,0-170,0	300 19,0-2
AC-Nr. 4 393 307 900 210,0-216,0	920	700	212,0-128,0	100	130,0-170,0	300 27,0-3
AC-Nr. 4 393 431 1050 208,0-214,0	1070	900 700	230,0-235,0 260,0-266,0	100	130,0-170,0	300 19,0-2
NC-Nr. 4 393 821						

En

Full-load delin		Breakaway	(20)	Fuel deli	very characteristics (5)	Starting	fuel delivery 6	LOW 1	aie	speed 3
Test oil temp	40°C (104°F) (2)		\sim	MAN NOW	(5)	switchir	ng point i			Control re
rev/min c	m ³ /1000 strokes	rev/min	40),	ev/min	cm ³ /1000 strokes	rev/min	cm ³ /1000 strokes	rev/m		mm
1 2		3		<u> </u>	5	6	7	8	+	9
	202 022		•		•	•	•	•	•	
	393 823 7,0-193,0	1070			174,0-180,0 175,0-181,0	100	130,0-170,0	300	19,	,0-25,
C-No A	393 825									
	4,0-230,0	1070	8	300	185,0-191	100	130,0-170,0	300	19,	0-25
	•				•		-			
	393 827 0,0-206,0	1070			190,0-196,0 214,0-220,0	100	130,0-170,0	300	19,	,0-25,
	393 829 0,0-234,0	1070				100	130,0-170,0	300	19.	.0-25.
		1070					,			
NC-Nr. 4 1050 21	393 831 3,0-219,0	1070			202,0-208,0 230,0-236,0	100	130,0-170,0			
C-Nr. 4	393 833									
050 26	4,0	1060-1980	9	900	280,5	100	130,0-170,0	300	19	,0-25
	393 835 0,0-226,0	1070			210,0-216,0 243,0-249,0	100	130,0-170,0	300	19	,0-25
			•		210,0 213,0					
	393 837 7,0-233,0	1070			208,0-214,0 247,0-253,0	100	130,0-170,0	300	19	,0-25
	393 890		_				400 0 470 0		04	
950 20	8,0-214,0	990	7	750	196,0-202,0	100	130,0-170,0	300	21	,0-2/
	393 891 8,0	965-975	8	395	203,0					
	393 961 1,0-187,0	920	7	700	172,0-178,0	100	130,0-170,0	300	19	,0-25
	394 001 8,0-224,0	720	6	500	240,0-246,0	100	130,0-170,0	300	27	,0- 33
	394 017 8,0-214,0	990	7	750	196,0-202,0	100	130,0-170,0	300	21	,0-27
IC-Nr. 4	394 020 9,0-257,0	725	G		258,0-264,0	100	130,0-170,0	300	19	-0-29
hecking value	9,0-237,0 es in brackets 394 062	, 25		, 00	20,0 207,0		* 1 mm less contr			-
300 11	3,0-119,0	820	6	500	102,0-108,0	100	130,0-170,0	300	19	.0-25

c2

Full-load de Control-rod		Breakaway	Puel delin	very characteristics 5a speed 5b	idle	fuel delivery 6	Low id	le speed 5
rev/min	cm ³ /1000 strokes	rev/min 3	rev/min	cm ³ /1000 strokes		cm ³ /1000 strokes 7	rev/min	travel
Nr.	4 394 064	T			1	l	·	
375	161,0-165,0	890	600	140,0-144,0	100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 066							
800	125,0-131,0	820	600	134,0-140,0	100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 068							
1025	192,0-198,0	1045	900	180,0-186,0	100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 070					1		
1000	200,0-206,0	1020	800	180,0-186,0	100	130,0-170,0	300	19,0-25
			600	189,0-195,0				
	4 394 072	055 65			100	130,0-170,0	300	19.0-25
	185,0-195,0	955-65			100	130,04170,0	, 300	13,0 20
	4 394 074	1040	900	207,0-213,0	100	130,0-170,0	300	19.0-25
1025	230,0-236,0	1040	700	209,0-215,0	100	130,0 170,0	, 000	13,0 20
AC-Nr.	4 394 076							
1000	227,0-233,0	1020	800	197,0-203,0	100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 078							
1000	235,0-241,0	1020	700	263,0-269,0	100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 080							
1000	220,0-226,0	1020	800	209,0-215,0	100	130,0-170,0	300	19,0-25
			600	227,0-233,0				
	4 394 082	000 0			400	120 0-170 (າ ລນທ	25.0
910	190,0	930,0			100	130,0-170,0	300	25,0
	4 394 084		700	420 0 445 0	100	130,0-170,0	0 200	10 0-25
900	160,0-166,0	920	700	139,0-145,0	100	130,0-170,	0 300	19,0-20
	4 394 086	600			100	130,0-170,	0 3 00	10 0-25
600	124,0-130,0	620 ©			100	130,0-170,	0 300	13,0-20
	4 394 088		600	424 n 420 n	100	130,0-170,	U 3UU	10 0-25
700	127,0-133	720	600	124,0-130,0	100	130,0*1/0,	U 300	13,0-20
	4 394 090	***	600	404 0 400 0	400	120 0.170	U 2UU	10 025
800	139,0-145,0	820	600	124,0-130,0	100	130,0-170,	U 300	13,0-23
	4 394 092			445 0 454 0	400	120 0 170	ດ ລດດ	10.0.20
925 lecking val	157,0-163,0 ues in brackets	945	800 600	145,C-151,0 134,0-140,0	100	130,0-170, * 1 mm less cont		

C3

Full-load Control-	rod stop	Breakaway	(3)	vel deli	very characteristics (5] Idle	fuel delivery 6	Low i	dle sp	eed 5
Test oil to	emp. 40°C (104°F) (2)		\sim l			switchi	ng point		Cor	itrol rod el
rev/min	cm ³ /1000 strokes	rev/min 3	_	ev/min	cm ³ /1000 strokes	rev/min		rev/m	um hu	
		3		<u></u>	5	- 6	7	В	+9	
AC-Nr.	4 394 094									
1000	180,0-186,0	1020			154,0-160,0 142,0-148,0	100	130,0-170,0	300	19,0-	·25,0
AC-Nr.	4 394 096									
1050	207,0-213,0	1070			161,0-175,0 147,0-153,0	100	130,0-170,0	300	19,0-	-25,0
AC-Nr.	4 394 098									
	187,0-193,0	920	7	00	162,0-168,0	100	130,0-170,0	300	27,0-	-33,(
	-	020	·		,.					
	4 394 100		-	00		400	420 0 470 0	200	27.0	22 (
900	200,0-206,0	920	7	00	184,0-190,0	10 <u>.</u> 0	130,0-170,0	300 /	2/,0-	-33,(
AC-Nr.	4 394 102									
900	203,0-209,0	920	7	00	209,0-215,0	100	130,0-170,0	300	19,0-	-25,
AC-No	4 394 104									
-	185,0-191,0	770	6	00	222,0-228,0	100	130,0-170,0	300	19.0-	-25.
/50	105,0-151,0	770	U	100	222,0 220,0	100	130,0 170,0		.,,,	,
AC-Nr.	4 394 106									
800	210,0-218,0	820	6	00	223,0-229,0	100	130,0-170,0	300	19,0-	-25,
AC-Nr.	4 394 108									
	222,0-228,0	1075	9	00	202,0-208,0	100	130,0-170,0	300	19,0	-25,
			7	00	207,0-213,0					
AC-Nr.	4 394 110									
	240,0-246,0	1020	8	00	224,0-230,0	100	130,0-170,0	300	19,0	-25,
1000	2.0,0 2.0,0				237,9-243,0		•			
AC-Nr	4 394 112									
	245,0-251,0	1070	q	00	224,0-230,0	100	130,0-170,0	300	19.0	-25,
1000	2.0,0 20.,0	1070			237,0-243,0					
AC-Nr	4 394 114									
	217,0-223,0	1020	Я	300	197,0-203,0	100	130,0-170,0	300	19.0	-25.
1000	217,0-225,0	1020			219,0-225,0	, , ,	,.		,.	,
AC N-	A 20A 116									
	4 394 116	920	7	700	212,0-218,0	100	130,0-170,0	300	27. N	-33
900	210,0-216,0	740	,	00	4149U-4109U	100	.50,0 170,0	500	,0	55,
AC-Nr.	4 394 118									
1050	269,0-275,0	1070			281,0-287,0	100	130,0-170,0	300	19,0	-25,
			7	' 00	293,0-299,0					

Checking values in brackets

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Testoil-ISO 4113

* 1 mm less control rod travel than col. 2

Control-r	delivery rod stop	Breakaway	②	Fuel deli high ide	very characteristics (56)	Starting Idle switchin	fuel delivery 6	Low id	le speed 5
	emp 40°C (104°F) (2) cm ³ /1000 strokes	rev/min	49	rev/min	cm ³ /1000 strokes		cm ³ /1000 strokes	rev/min	travel
rev/min	2	3		4	5	6	7	10	9
					1	1		ţ.	1
	. 4 394 120	4070		000	246,0-252,0	100	130,0-170,0	300 1	9-0-25
1050	234,0-240,0	1070			268,0-274,0	100	130,0 170,0		2,0 = 0
AC-Nr	. 4 394 122					400	420 0 470 0	200	10 N_2E
1050	262,0-268,0	1070		900 7 0 0	279,0-285,0 289,0-295,0	100	130,0-170,0	300	19,0-25
AC-Nr	. 4 394 124								10 0 05
1050	241,0-247,0	1070		900 700	265,0-271,0 268,0-274,0	100	130,0-170,0	300	19,0-25
AC-Nr	. 4 394 126						100 0 470 0	200	40 0 25
900	232,0-238,0	920		700	253,0-259,0	100	130,0-170,0	300	19,0-25
AC-Nr 750	244,0-250,0	770		700	253,0-259,0	100	130,0-170,0	300	19,0-25
	. 4 394 130	,,,							
800	239,0-245,0	820		600	248,0-254,0	100	130,0-170,0	300	19,0-25
AC-Nr	. 4 394 132				222 2 226 2	400	130,0-170,0	300	19 0-26
1000	212,0-218,0	1020		800	230,0-236,0	100	130,0-170,0	300	13,0 2
AC-Nr 900	4 394 134 288,0-294,0	920		700	287,0-293,0	100	130,0-170,0	300	27,0-3
	c. 4 394 136								
1000	255,0-261,0	1020		800 600	272,0-278,0 270,0-276,0	100	130,0-170,0	300	19,0-2
AC-N	r. 4 394 138								40.0.0
1050	239,0-245,0	1070		900 700	233,0-239,0 273,0-279,0	100	130,0-170,0	3 300	17,0~2
AC-N	r. 4 394 140						400 0 470 1	300	10.00
1000	215,0-221,0	1020		800 600	197,0-203,0 220,0-226,0	100	130,0-170,0	J 300	13,0-2
AC-N	r. 4 394 142			7.00	054 0 050 0	4.00	130,0-170,0	700	10 0-2
900	222,0-228,0	920		700	254,0-260,0	100	130,0-1/0,0	<i>u</i> 300	13,0-2
AC-N 1050	r. 4 394 144 257,0-263,0	1070		750	272,0-278,0	100	130,0-170,	300	27,0-3
AC-N	r. 4 394 148					4.00	420 0 470	n 200	2E D
_	295 0-303,0 values in practices	1075		900	309,0-315,0	100	130,0-170, *1 mm less cont		
AC-N	r. 4 394 150	1070		900	274,0-280,0	100	130,0-170,		40.0.2

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C. Settings for Fuel Injection Pump with Fitted Governor

Full-load d	d stop	Breakaway '(2	Fuel del/ high idle !	very characteristics (5a)	Starting I Idle switchin		"	le speed 5
rest oil ten rev/min	np 40°C (104°F) (2) cm³/1000 strokes	rev/min	rev/min	cm ³ /1000 strokes	1 1	cm ³ /1000 strokes	rëv/min	travel mm 9
- No.	4 204 152	3			-		1	1
	'4 394 152 262,0-268,0	1070	900 700	267,0-273,0 267,0-273,0	100	130,0-170,0	300	19,0-25,0
	4 394 154 279,0-285,0	1070	900 700	283,0-289,0 293,0-299,0	100	130,0-170,0	300	19,0-25,
AC-Nr.	4 394 156			204 0 207 0	100	130,0-170,0	300	19.0-25.
1050	296,0-302,0	1070	900 700	301,0-307,0 309,0-315,0	100	130,0-170,0	300	15,0 20,
AC-Nr. 1050	, 4 394 157/15 253,0-256,0	58 1070	900 700	252,0-258,0 269,0-275,0	100	130,0-170,	300	19,0-25,
AC-Nr 1050	. 4 394 160 208,0-214,0	1070	900 700	230,0-235,0 260,0-266,0	100	130,0-170,	0 300	19,0-25,
AC-Nr 900	. 4 394 162 181,0-187,0	920	700	172,0-178,0	100	130,0-170,	0 300	19,0-25
AC-Nr 925	. 4 394 164 176,0-182,0	945	800 700	162,0-168,0 177,0-183,0	100	130,0-170,	0 300	19,0-25
AC-Nr 900	. 4 394 166 173,0-179,0	920	800	160,0-166,0	100	130,0-170,	0 300	19,0-25
AC-Nr 925	237,0-243,0	945	800 700			130,0-170	,0 300	27,0-33
AC-Ni 700	r. 4 394 170 218,0-224,0	720	600	240,0-246,0	100	130,0-170	,0 300	27,0-33
	r. 4 394 176 213,0-219,0	1070	900 700			130,0-170	,0 30	19,0-25
AC-N 1050	r. 4 394 246 211,0-220,0	1055-1075	975 700 600	258,5-269,5	5	130,0-170	,0 30	0 19,0-2
700	r. 4 3942248 246.0 values in brackets	720	600	263,0	100	130,0-170		
AC-N	ir. 4 394 250 244,5-254,5	1060-1080)		100	130,0-170	,0 30	0 19,0-2

C.	Settings 1	for	Fuel I	njection	Pump with	Fitted	Governor
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ull-load de	stop	Breakaway	Fuel deli	ivery characteristics 56 speed (5b)	idle	fuel delivery 6	LOW 10	le speed 5
Test oil ten	np. 40°C (104°F) (2)				awitchir	ľ	ari (m. c	Control roc
ev/min	cm ³ /1000 strokes	rev/min 3	rev/min	cm ³ /1000 strokes 5	6	cm ³ /1000 strokes 7	rev/min	9
AC-No	4 394 257				1		1	1
	258,0				100	130,0-170,0	300	27.0
					100	130,0 170,0	300	27,0
•	4 394 314							
1050	246,0	1070	900 - 200	240,0 267,0	100	130,0-170,0	300	19,0-25
AC No	4 204 224							
	4 394 331	1070	900	265,0-271,0	100	130,0-170,0	300	19 0-25
1050	241,0-247,0	1070	700	268,0-274,0	100	130,0-170,0	300	13,0-23
AC-Nr.	4 394 332							
	263,0-274,0	1070	900	274,0-280,0	100	130,0-170,0	300	19,0-25
		- • •	700	280,0-286,0	•-	• • • • • • •		-
AC-Nr.	4 394 347							
1050	269,0-275,0	1070	900	281,0-287,0	100	130,0-170,0	300	19,0-25
			700	293,0-299,0				
AC-Nr.	4 394 348							
1050	234,0-240,0	1070	900	246,0-252,0	100	130,0-170,0	300	19,0-25
			700	268,0-274,0				
AC-Nr.	4 394 349							
1050	208,0-214,0	1070	900 700	230,0-236,0 260,0-266,0	100	130,0-170,0	300	19,0-25
	_		700	200,0 200,0				
	4 394 350	4070	200	030 0 005 0	400	420 0 470 0	200	40 0 25
1050	262,0-268,0	1070	900 700	279,0-285,0 289,0-295,0	100	130,0-170,0	300	19,0-25
AC No	4 204 251							
	4 394 351 253.0-256.0	1070	900	252,0-258,0	100	130,0-170,0	300	19,0-25
1 000	233,U=230,U	10/0	700	269,0-275,0	100	190,0-170,0	, 500	, , , , 0 - 2.0
AC-Nr	4 394 352							
	262,0-268,0	1070	900	267,0-273,0	100	130,0-170,0	300	19,0-25
	202,		700	267,0-273,0				
AC-Nr.	4 394 353							
	279,0-285,0	1070	900	283,0-289,0	100	130,0-170,0	300	19,0-25
			700	293,0-299,0				
AC-Nr.	4 394 354							
1050	296,0-302,0	1070	900	301,0-307,0	100	130,0-170,0	300	19,0-25
			700	309,0-315,0				
necking va	4 394 356 Nues in brackets					* 1 mm lers cont		
1050	246,0	900 700	240, 267,		100	130,0-170,0	300	19,0-25

C7

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C. Settings for Fuel Injection Pump with Fitted Governor

Full-load delivery Control-rod stop	Breakaway 20	Fuel deli high idle	very characteristics (5e)	Starting i	ruel delivery 6	Low io	Control rod
rev/min cm³/1000 strokes	rev/min 4a	rev/min	cm ³ /1000 strokes		cm³/1000 strokes	rév/mii 8	travel
AC-Nr. 4 394 386 600 167,0-175,0	620			100	130,0-170,0	300	25,0
AC-Nr. 394 390 900 259,0-267,0	925	700	238,0-246,0	100	130,0-170,0	300	19,0-25,0
AC-Nr. 4 394 428 1000 188,0-196,0	1025	800	180,0-187,0	100	130,0-170,0	300	25,0
AC-Nr. 4 394 473 850 189,0-197,0	875	750	185,0-193,0	100	130,0-170,0	325	30,0
AC-Nr. 4 394 501 900 175,0	925	700	158,0	100	130,0-170,0	300	19,0-25,0
AC-Nr. 4 394 521 1000 239,0-247,0	1025	700	229,0-235,0	100	130,0-170,0	300	25,0
AC-Nr. 4 394 527 900 161,0	925	800	151,0	100	130,0-170,0	300	19,0-25,0
AC-Nr. 4 394 541 1050 202,0-210,5	1060-1080			100	130,0-170,0	300	19,0-25,0
AC-Nr. 4 394 550 1000 230,5-239,5	1010-1030			100	130,0-170,0	300	19,0-25,0
AC-Nr. 4 394 561 1050 258,0	1060-80	900	256,0	100	130,0-170,0	300	19,0-25,0
AC-Nr. 4 394 564 1050 244,0	1070	900	234,0	100	130,0-170,0	300	19,0-25,0
AC-Nr. 4 394 569 1000 203,0-211,5	1010-1030		v	100	130,0-170,0	300	19,0-25,0
AC-Nr. 4 394 590 1050 260,5-271,0	1060-1080			100	130,0-170,0	300	19,0-25,0
AC-Nr. 4 394 593 1050 251,5-261,5	1060-1080			100	130,0-170,0	300	19,0-25,0
AC-Nr. 4 394 703 1050 260,5-271,0	1060-1080	900 700	267,0-278,0 267,0-278,0	100	130,0-170,0	300	19,0-25,0
AC-Nr. 4 394 705/706 Checking values in brackets En 1050 258,0	5 1060-80	900	256,0	100	*1 mm less cont		travel than col. 2 19,0-25,0

Cont	oad delivery rol-rod stop	Breakaway	②	Fuel deli	ivery characteristics (5	Idle	fuel delivery 6	Low id?	e speed 5) Control rod
Test	oil temp 40°C (104°F) (2		•			1	ng point	rév/min	travel
rev/n	nin cm³/1000 strokes		୴	rev/min	1.	rev/min	cm ³ /1000 strokes	8	9
1	2	3		<u>•</u>	5	+	<u> </u>	١	
AC-N	r. 4 394 707	•	·						
1050	244,0	1070	9	00 2	234,0	100	130,0-170,0 3	300 19	,0~25,0
AC-N	r. 4 394 718								
955	198,0-213,0	965-975	8	00 1	96,0-210,0	100	130,0-170,0	200 21	,0-27,0
AC-N	r. 4 394 719								
875	166,0-168,0	915	6	00 1	142,5-146,5	100	130,0-170,0	300 21	,0-27,0
AC-N	r. 4 394 733								
		1020	o	00 2	272,0-278,0	100	130,0-170,0	300 19	.0-25.0
1000	255,0-261,0	1020			270,0-276,0	100	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		,,.
AC-N	r. 4 394 740/741								
1020		1030-1040	q	15 2	208,0-218,0				
		1000 1010	•		200,0 0.0,0				
AC-N	r. 4 394 744								
1050	250,0	1060-1080	9	000	256,0	100	130,0-170,0	300 19	9,0-25,0
AC-N	r. 4 394 745								
_		000	7	' 50	196,0-202,0	100	130,0-170,0	300 21	0-27.0
950	208,0-214,0	990	,	30	190,0-202,0	100	130,0 170,0		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
AC-N	r. 4 394 746								
875	161,0-165,0	890	6	500	140,0-144,0	100	130,0-170,0	300 19	9,0-25,0
10.1									
_	r. 4 394 771				400 0 400 0	100	130,0-170,0	200 10	0 0-25 0
800	113,0-119,0	820	6	500	102,0-108,0	100	130,0-170,0	300 13	7,0-25,0
AC-N	r. 4 394 773								
800	125,0-131,0	820	•	500	134,0-140,0	100	130,0-170,0	300 19	9,0-25,0
	•			=	-				
AC-N	ir. 4 394 775							000 4	
1025	192,0-198,0	1045		900	180,0-186,0	100	130,0-170,0	300 1	9,0-25,0
AC-A	ir. 4 394 777					`			
•••		4020		800	180,0-186,0	100	130,0-170,0	300 19	9.0-25.0
1000	200,0-206,0	1020			189,0-195,6	100	100,0 110,0		-,,-
	L. A 004 370								
	ir. 4 394 779					100	120 0170 0	200 1	0 N_2E N
940	185,0-195,0	955-65				100	130,0-170,0	300 I	J,U~2J,U
AC-N	Nr. 4 394 781								
	5 230,0-236,0	1040	1	900	207,0-213,0	100	130,0-170,0	300 1	9,0-25,0
1024	,, .			700	209,0-215,0	•			
AC-I	Nr. 4 394 783								
	227,0-233,0	1020	;	800	197,0-203,0	100	130,0-170,0	300 1	9,0-25,0
Chec	king values in brackets	. • • •			-		~ 1 mm 1888 CO	idoi fod (f	avอา เกสก CO1. 2

C.	Settings	for F	uel Injection	Pump with	Fitted (Governor
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						Low idle speed 5)
Full-load delivery Control-rod stop	Breakaway 26)	Fuel deli high idle	very characteristics (5a) speed (5b)	Starting Idle switchin	fuel delivery 6	Control rod
rev/min cm³/1000 strokes	rev/min 4a	rev/min	cm ³ /1000 strokes		cm ³ /1000 strokes	travel rev/min mm
1 2	3	4	5	6	7	8 9
AC-Nr. 4 394 785	1020	760	263,0-269,0	100	130,0-170,0	300 19,0-25,0
1000 235,0-241,0	1020	700	200,0 200,0	,,,,		
AC-Nr. 4 394 787 1000 220,0-226	1020	800 600	209,0-215,0 227,0-233,0	100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 789 910 190,0	930			100	130,0-170,0	300 25,0
AC-Nr. 4 394 791 900 160,0-166,0	920	700	139,0-145,0	100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 793 600 124,0-130,0	620			100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 795 700 127,0-133,0	720	600	124,0-130,0	100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 797 800 139,0-145,0	820	600	124,0-130,0	100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 799 925 157,0-163,0	945	800 600	145,0-151,0 134,0-140,0	100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 801 1000 180,0-186,0	1020	800 700	154,0-160,0 142,0-148,0	100	130,0-170,	0 300 19,0-25,0
AC-Nr. 4 394 803 1050 207,0-213,0	1070	900 800	161,0-175,0 147,0-153,0	100	130,0-170,	0 300 19,0-25,0
AC-Nr. 4 394 805 900 187,0-193,0	920	700	162,0-168,0	100	130,0-170,	0 300 27,0-33,0
AC-Nr. 4 394 807 900 200,0-206,0	920	700	184,0-190,0	100	130,0-170,	0 300 27,0-33,0
AC-Nr. 4 394 809 900 203,0-209,0	920	700	209,0-215,0	100	130,0-170	,0 300 19,0-25,
AC-Nr. 4 394 811 750 185,0-191,0	770	600	222,0-228,0	100	130,0-170	,0 300 19,0-25,
AC-Nr. 4 394 813 Checking values in brackets 800 210,0-218,0	820	600	223,0-229,0	100		trol rod travel than col. 2 ,0 300 19,0-25,

C.	Settings	for Fuel In	jection	Pump with	Fitted	Governor

Full-load delivery Control-rod stop	Breakaway	20 Fuel del high ide	ivery characteristics (speed 50)	_ 1016	g fuel delivery 6	Low idle speed 5
Test oil temp. 40°C (104°F) (2 rev/min cm³/1000 strokes	rev/min	rev/min	cm ³ /1000 strokes	rev/mi	n cm³/1000 strokes	rev/min mm 8 9
1 2	3		+	1		
Ċ-Nr. 4 394 815 050 222,0-228,0	1070		202,0-208,0 207,0-213,0	100	130,0-170,0 3	00 19,0-25,0
0.11. 4.204.047						
C-Nr. 4 394 817 000 240,0-246,0	1020		224,0-230,0 237,0-243,0	100	130,0-170,0 3	300 19,0-25, 0
C-Nr. 4 394 819						
050 245,0-251,0	1070		224,0-230,0 237,0-243,0	100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 821 1000 217,0-223,0	1020		197,0-203,0 219,0-225,0	100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 823 900 210,0-216,0	920	700	212,0-218,0	100	130,0-170,0	300 27,0-33,0
AC-Nr. 4 394 825 1050 269,0-275,0	1070		281,0-287,0 293,0-299,0	100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 827 1050 234,0-240,0	1070		246,0-252,0 268,0-274,0	100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 829 1050 262,0-268,0	1070	900 700	279,0-285,0 289,0-295,0	100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 831 1050 241,0-247,0	1070	900 700	265,0-271,0 268,0-274,0	100	130,0-170,0	300 19,0-25,
AC-Nr. 4 394 833 900 232,0-238,0	920	700	253,0-259,0	100	130,0-170,0	300 19,0-25,
AC-Nr. 4 394 835 750 244,0-250,0	770	700	253,0-259,0	100	130,0-170,0	300 19,0-25,
AC-Nr. 4 394 837 800 239,0-245,0	820	600	248,0-254,0	100	130,0-170,0	300 19,0-25
AC-Nr. 4 394 839 1000 212,0-218,0	1020	800	230,0-236,0	100	130,0-170,0	300 19,0-25
AC-Nr. Checking values in brackets m4 394 841						ntrol rod travel than co
900 288,0-294,0	920	700	287,0-293,0	100	130,0-170,0	300 27,0-33

Control-	delivery rod stop emp. 40°C (104°F) (2)	Breakaway	(2b) Fuel de high ide	Hivery characteristics (5) a speed (5b)	IOIO	fuel delivery 6		e speed 5) Control rod
rev/min	cm ³ /1000 strokes	rev/min	rev/mir	cm ³ /1000 strokes	rev/mir	cm ³ /1000 strokes	rev/min 8	mm 9
C-Nr.				ı	•	•		•
000	255,0-261	1020	800 600	272,0-278,0 270,0-276,0	100	130,0-170,0	300 19	,0-25,0
C-Nr.	4 394 845							
050	239,0-245,0	1070	900 700	233,0-239,0 273,0-279,0	100	130,0-170,0	300 19	9,0-25,0
C-Nr.	4 394 847							
000	215,0-221,0	1020	800 600	197,0-203,0 220,0-226,0	100	130,0-170,0	300 19	9,0-25,0
C-Nr.	4 394 849							
00	222,0-228,0	920	700	254,0-260,0	100	130,0-170,0	300 1	9,0-25,0
	4 394 851	4070	750	272 0 270 0	100	130,0-170,0	300 2	7 N=33.1
050	257,0-263,0	1070	750	272,0-278,0	100	130,0-170,0	300 2	,,0 00,
	4 394 853	1075	900	309,0-315,0	100	130,0-170,0	300 2	5.0
	295,0-303,0	10/5	900	309,0-313,0	100	130,0 170,0	000 1	-,-
	, 4 394 857	1070	900	267,0-273,0	100	130,0-170,0	300 1	9.0-25.
050	262,0-268,0	1070	700	267,0-273,0		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
C-Nr.	4 394 861							
1050	296,0-302,0	1070	900 700	301,0-307,0 309,0-315,0	100	130,0-170,0	300 1	9,0-25,
C-Nr.	. 4 394 863							
1050	253,0-256,0	1070	900 700	252,0-258,0 269,0-275,0	100	130,0-170,0	300 1	9,0-25,
AC-Nr.	. 4 394 865							
1050	208,0-214,0	1070	900 700	230,0-236,0 260,0-266,0	100	130,0-170,0	300 1	9,0-25,
AC-Nr.	. 4 394 867							6 8 8 8
900	181,0-187,0	920	700	172,0-178,0	100	130,0-170,0	300 1	9,0-25,
AC-Nr.	. 4 394 869							
925	176,0-182,0	945	800 700	162,0-168,0 177,0-183,0	100	130,0-170,0	300 1	9,0-25,
AC-Nr	. 4 394 871							
900	173,0-179,0	920	800	160,0-166,0	100	130,0-170,0	300 1	9,0-25,
AC-Nr Checkin 925	. 4 394 873 by values in bruckets 237,0-243,0	945	800	251,0-257,0	100	*1 mm less co 130,0-170,0		

C12

C. Se	ttings for Fu	el Injection	Pumj	with Fitte	d Gov	ernor	AL	0 11,0 a
Full-load d	letivery			ery characteristics (5a)		el delivery 6	Low id	Control rod
rev/min	cm ³ /1000 strokes	rev/min 4a	rev/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	rev/min	
AC-Nr	4 394 875				, ,		1	, ,
700	218,0-224,0	720	600	240,0-246,0	100	130,0-170,	0 300	27,0-33,
-	. 4 394 877 213,0-219,0	1060-1080	900	212,0-218,0	100	130,0-170,	0 300	19,0-25,
1030	213,0 213,0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	700	240,0-246,0				
AC-Nr	. 4 394 879							
1050	211,0-220,0	1055-1075	975 700 600	237,5-247,0 258,5-269,5 255,5-266,0	100	130,0-170	0 300	19,0-25
AC-Nr	. 4 394 881							
700	246,0	720	600	263,0	100	130,0-170	,0 300	19,0-25
AC-Nr	. 4 394 883			054 F	100	130,0-170	0 300	10 0-25
1050	244,5	1060-1080		254,5	100	130,0-170	,0 300	13,0-23
AC-Nr 600	258,0				100	130,0-170	,0 300	27,0
AC-N	r. 4 394 891							05.0
600	167,0-175,0	620			100	130,0-170	,0 300	1 25,0
	r. 4 394 893	025	700	238,0-246,0	100	130,0-170	.0 300	19.0-29
900	259,0-267,0	925	700	230,0-240,0	100	100,0	,	,
AC-N	r. 4 394 895 188,0-196,0	1025	800	180,0-187,0	100	130,0-170	,0 300	25,0
	r. 4 394 897							
850	189,0-197,0	875	750	185,0-193,0	100	130,0-170	,0 32	5 30,0
FIC-N	r. 4 394 890							0 40 0 0
900	175,0	925	700	158,0	100	130,0-170	,0 30	0 19,0-2
	r. 4 394 905	4005	700	229,0-235,0	100	130.0-170	.0 30	0 25.0
	239,0-247,0	1025	700	229,0-233,0	100		,.	
AC-N 900	r. 4 394 907 151,0	925	800	151,0	100	130,0-170	,0 30	0 19,0-2
AC-N	r. 4 394 909	·						
1050	202,0-210,5	1060-1080			100	130,0-170	0,0 30	0 19,0-2
	r. 4 394 911	4040 4020			100	130,0-17).D 3N	0 19.0-2
	230,5-239,5 values in brackets	1010-1030			100	° 1 mm less c	ontrol rod	travel than col
AC-N	lr. 4 394 915) 203,0-211,5	1010-1030			100	130,0-17	0,0 30	0 19,0-2
1000	,,.							

Full-load de Control-rod Test oil tem		Brezkaway (20	Fuel definition to	very characteristics (Sa speed (Sb)	Starting Idle switching	•	Low idl	e speed 5 Control rod
rev/min 1	cm ³ /1000 strokes	rev/min 4a	rev/min	cm ³ /1000 strokes 5	rev/min 6	cm ³ /1000 strokes 7	rev/min 8	9 9
	4 394 917 260,5-271,0	1060-1080	•		100	130,0-170,0	300	19,0-25,0
	4 394 919 215,5-261,5	1060-1080			100	130,0-170,0	300	19,0-25,
	4 394 921 260,5-271,0	1060-1080	900 700	267,0-278,0 267,0-278,0	100	130,0-170,0	300	19,0-25,0
	4 394 925 244,0	1070	900	234,0	100	130,0-170,0	300	19,0-25,
AC-Nr. 900	4 394 997 173,0-179,0	920	800	160,0-166,0	100	130,0-170,0	300	19,0-25,

Festoil-ISO 4113

Test Specifications Fuel Injection Pumps 1 and Governors

WPP 001/4 ALO 16,0 a

1. Edition

ROV 300-1025 PA 112 KR PE 6 P 120/420 LS 152

0 401 846 180

 $1 - 5 - 3 - 6 - 2 - 4 (60^{\circ})$

Calibrating nozzle-and-holder assembly 0 681 443 022 9 681 230 703 Test-pressure line

company Allis-Chalmers engine 16000-2500

All test specifications are valid for Bosch Fuel Injection Pump Test Benches and Testers

A. Fuel injection Pump Settings

Port closing at prestroke

2,80+0,1

mm (from BDC)

Rotational speed rev/min	Control rod travel mm 2	Fuel delivery cm ³ /100 strokes 3	Difference cm³/ 100 strokes 4	Control rod travel mm 2	Fuel delivery cm ³ /100 strckes 3	Spring pre-tensioning (torque-control valve) mm 6
1000	12	26,4-27,1	1,0			
600	6 12 15	8,6- 9,1 26,3-28,2 33,8-36,2				
200	6	4,2-5,2				

Adjust the fuel delivery from each outlet according to the values in [

B. Governor Settings

Upper rated	ï	1	Intermediate	rated sp	•	Lower rated	speed	ليستنا	Sliding s	leeve travel
Degree of deflection of control lever	rev/min Control rod travel mm	Control rod travel mm rev/min 2a	Degree of deflection of control lever	rev/min 5	mm 4	Degree of deflection of control lever	rev/min	mm 3	rev/min	(1) mm 11
66°	1050 1100 1150 1210 1300	15 - 18 10,7- 15 6,0-11,6 0,7 0	,			10°	250 350 450 550	6,4-8,0 3,0-5,2 1,3-2,8 0		

Torque control travel a =

C. Settings for Fuel Injection Pump with Fitted Governor

Full-load d Control-ro Test oil ter		Rotational-speed 20 timitation intermediate speed	Fuel deli- high idle s	very characteristics 5a	Starting Idle switchin		Torque- travel	Control rad
rev/min	cm³/1000 strokes	rev/min 49	rev/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	rev/min	travel mm
1	2	3	4	5	6	7	8	9

cking values in brackets

* 1 mm less control red travel then col. 2

C. Settings for Fuel Injection Pump with Fitted Governor	ALO 16,0 a	-2-
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Full-load de Control-rod Test oil tem		Breakaway	(20) Fuel deli-	rery characteristics (5e peed (5b)	Starting Idle switching	fuel delivery 6	Low idle	e speed 5
	cm³/1000 strokes	rev/min 3	rev/min	cm ³ /1 000 strokes		cm ³ /1000 strokes 7	rév/min 8	travel mm
AC-Nr.	4 392 715	•						
1050	187,0-193,0	1070	900 700	174,0-180,0 175,0-181,0	100	130,0-170,0	300 1	19,0-25,0
AC-Nr.	4 392 717							
1050	224,0-230,0	1070	800	185,0-191,0	100	130,0-170,0	300 1	19,0-25,0
	4 392 719							
1050	200,0-206,0	1070	900 700	190,0-196,0 214,0-220,0	100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 392 721							
1050	242,0-248,0	1070	900 700	220,0-226,0 230,0-236,0	100	130,0-170,0	300 1	9,0-25,
AC-Nr.	4 392 723							
750	244,0-250,0	7 70	700	253,0-259,0	100	130,0-170,0	300 1	9,0-25,
	4 392 725							
	239,0-245,0	820	600	248,0-254,0	100	130,0-170,0	300 1	9,0-25,
	4 392 727 232,0-238,0	920	700	253,0-259	100	130,0-170,0	300 1	9,0-25,
	4 392 729							
1000	212,0-218,0	1020	800	230,0-236,0	100	130,0-170,0	300 1	9,0-25,
	4 392 731							
	288,0-294,0	920	700	287,0-293,0	100	130,0-170,0	300 2	7,0-33,
	4 392 735 239,0-245,0	1070	900 700	233,0-239,0 273,0-279,0	100	130,0-170,0	300 1	9,0-25,
•••	4 7		700	2/3,0-2/3,0				
	4 392 737 215,0-221,0	1020	800 600	197,0-203,0 220,0-226,0	100	130,0-170,0	300 1	9,0-25,0
AC No	4 392 739		000	220,0"220,0				
	207,0-213,0	1070	900 700	195,0-201,0 225,0-231,0	100	130,0-170,0	300 1	9,0-25,
AC-Nr.	4 392 741							
	213,0-219,0	1070	900	202,0-208,0	100	130,0-170,0		
AC-Nr.	4 392 743		700	230,0-236,0			•	
1050 necking valu	220 ,0-226 ,0 ues in brackets	1070	900 700	210,0-216,0 243,0-249,0	100	130,0-170.0 1 mm less contro	l rod trave	9,0-25,0 I than col. 2

Testoil-ISO 4113

Eπ

			N _z			fuel delivery (6)	Low sa	e speed 5
Full-load delive Control-rod sto Test oil temp. 4	0	Breakaway (21	Fuel delin high idle s	very characteristics (5a peed (5b)	Idle	fuel delivery (6)	LOW IG	Control ro
ev/min cm	3/1000 strokes	rev/min	rev/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	rév/min	travel mm
2		3	4	5	6	7	8	9
AC-Nr A	392 747	•	•		•	•	•	
	7,0-233,0	1070	900	208,0-214,0	100	130,0-170,0	300	19.0-25
1030 22	7,0-23,0	1070	700	247,0-253,0	100	130,0 170,0	500	13,0 20
AC-Nr. 4	392 749							
	0,0-234,0	1070			100	130,0-170,0	300	19,0-25
								,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
-	392 750	4070			100	120 0 170 0	200	19.0-25
1050 23	0,0-234,0	1070			100	130,0-170,0	300	13,0-23
	392 768							
800 12	3,0-133,0	820	600	132,0-142,0	100	130,0-170,0	300	19,0-25
AC-Nr. 4	392 775/	776						
3 7 5 16	2,0-164,0	890	600	140,0-144,0	100	130,0-170,0	300	19,0-25
AC-Nr. 4	392 777							
	5,0-207,0	970	700	195,0-199,0	100	130,0-170,0	300	19,0-25
	392 778							
	8,0-214,0	990	750	196,0-202,0	100	130,0-170,0	300	21,0-27
		330	750	130,0-202,0	100	130,0-170,0	300	21,0-27
	392 779							
1025 19	0,0-200,0	1030-40	1000 900	191,0-201,0 178,0-188,0	100	130,0-170,0	300	19,0-25
AC N= A	202 704			,,.				
	392 781 8,0-238,0	1050-60	900	205,0-215,0	100	130,0-170,0	300	10 0-25
1025 22	0,0-230,0		700	207,0-217,0	100	130,0-170,0	300	19,0-25
AC-Nr. 4	392 953							
	5,0-195,0	955-65			100	130,0-170,0	300	19.0-25
	393 095 1,0-221,0	1060-80	900	210,0-220,0	100	130,0-170,0	300	10 0-25
1050 21	1,0-221,0	1000-00	700	238,0-248,0	100	130,0 170,0	500	13,0-20
AC-Nr. 4	393 307							
	0,0-216,0	920	700	212,0-218,0	100	130,0-170,0	300	27.0-33
								,.
	393 431	1070	900	230,0-235,0	100	130,0-170,0	პიი	19,0-25
1030 20	8,0-214,0	1070	700	260,0-266,0	100	130,0-170,0	200	13,0-23
AC-Nr. 4	393 821							
	2,0-248,0	1070	900	220,0-226,0	100	130,0-170,0	300	19.0-25
ecking values	•	. 3. 4	700	230,0-236,0		* 1 mm less contri		•

C. Settings	for Fuel Injection	Pump with Fitted Go	vernor
	the state of the s		

ALO 16,0 a -4-

ull-load d	d stop	Breakaway 20	Fuel deli	very characteristics 56	Idle	fuel delivery 6	Low idle s	
Test oil ter	np. 40°C (104°F) (2)	rev/min 4a	ł	1		ng point	tra	ontrol rod
ev/min	cm ³ /1000 strokes	rev/min 3	rev/min	cm ³ /1000 strokes 5	6	cm ³ /1000 strokes 7	rev/min m	
AC-No	. 4 393 823				ı	1	1 1	'
1050	187,0-193,0	1070	900	174,0-180,0	100	130,0-170,0	300 19	0-25
1030	107,0-155,0	1070	700	175,0-181,0	100	130,0-170,0	990 13	,0-23,
AC-Nr	. 4 393 825							
1050	224,0-230,0	1070	800	185,0-191,0	100	130,0-170,0	300 19	,0-25,
AC-Nr	. 4 393 827							
1050	200,0-206,0	1070	900	190,0-196,0	100	130,0-170,0	300 19	,0-25
			700	214,0-220,0				
AC-Nr	. 4 393 829							
1050	230,0-234,0	1070			100	130,6-170,0	300 19	,0-25
AC-Nr	. 4 393 831							
1050	213,0-219,0	1070	900	202,0-208,0	100	130,0-170,0		
			700	230,0-236,0				
	. 4 393 833							
1050	264,0	1060-1080	900	280,5	100	130,0-170,0	300 19	,0-25
AC-Nr	. 4 393 835							
1050	220,0-226,0	1070	900 700	210,0-216,0 243,0-249,0	100	130,0-170,0	300 19	,0-25
IC No.	A 202 027		, , ,	210,0 213,0				
1050	. 4 393 837 227,0-233,0	1070	900	208,0-214,0	100	130,0-170,0	300 19	0-25
1030	227,0-233,0	10/0		247,0-253,0	100	130,0-170,0	300 19	,0-23
AC-Nr.	. 4 393 890							
950	208,0-214,0	990	750	196,0-202,0	100	130,0-170,0	300 21	,0-27
\C-Nr.	. 4 393 891							
955	208,0	965-975	895	203,0				
1C-Nr	. 4 393 961							
900	181,0-187,0	920	700	172.0-178.0	100	130,0-170,0	300 19	.0-25
	. 4 394 001			•		, ,		-
700	218,0-224,0	720	600	240,0-246,0	100	130,0-170.0	300 27	.0-33
			3.0	<i>□.</i> ,		,	- / ·	
950	4 394 017 208,0-214,0	990	750	196,0-202,0	100	130,0-170,0	3NN 21	. N-27
		330	, 50	10010 20210	.00	130,0 170,0	500 E1	,0 ./
	. 4 394 020	705	600	250 0 264 0	100	120 0 170 0	200 10	0-20
700	249,0-257,0	725	600	258,0-264,0	190	130,0-170,0		

Checking values in brackets

En

Full-load delivery Control-rod stop	Breakaway	(20) Evel delin	very characteristics 5a	Starting Idle	fuel delivery 6	Low idle speed 3
Test oil temp. 40°C (104°F) (2)				switchir		Control rod travel
rev/min cm³/1000 strokes	rev/min 3	rev/min	cm ³ /1000 strokes 5	rev/min	cm ³ /1000 strokes 7	rev/min mm 8 9
AC-Nr. 4 393 890						
950 208,0-214,0	990	750	196,0-202,0	100	130.0-170.0	300 21,0-27,0
AC-Nr. 4 393 891		, 55	,.		,.	
955 208,0	965-975	895	203,0			
	J03-J13	0,5	200,0			
AC-Nr. 4 393 961 900 181,0-187,0	920	700	172,0-178,0	100	130,0-170,0	300 19,0-25,0
	320	700	172,0-170,0	100	150,0-170,0	300 19,0-23,0
AC-Nr. 4 394 001	720	600	240,0-246,0	100	120 0 170 0	200 27 0 22 0
700 218,0-224,0	720	600	240,0-240,0		130,0-170,0	300 27,0-33,0
AC-Nr. 4 394 017	200	760	406 0 000 0	400	400 0 470 0	
950 208,0-214,0	990	750	196,0-202,0	100	130,0-1/0,0	300 21,0-27,0
AC-Nr. 4 394 020						
700 249,0-257,0	725	600	258,0-264,0	100	130,0-170,0	300 19,0-29,0
AC-Nr. 4 394 062						
800 113,0-119,0	82 0	600	102,0-108,0	100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 064						
375 161,0-165,0	890	600	140,0-144,0	100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 066						
800 125,0-131,0	820	600	134,0-140,0	100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 068						
1025 192,0-198,0	1045	900	180,0-186,0	100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 070						
1000 200,0-206,0	1020	800 600	180,0-186,0 189,0-195,0	100	130,0-170,0	300 19,0-25,0
		000	105,0-155,0			
AC-Nr. 4 394 072	055.65			100	120 0-170 0	300 19,0-25,0
940 185,0-195,0	955-65			100	130,0-170,0	300 19,0-23,0
AC-Nr. 4 394 074	4040	000	207 0 212 0	100	120 0 170 0	300 19,0-25,0
1025 230,0-236,0	1040	900 700	207,0-213,0 209,0-215,0	100	130,0-1/0,0	300 19,0-25,0
AC-Nr. 4 394 076						
1000 227,0-233,0	1020	800	197,0-203,0	100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 078						
1000 235,0-241,0	1020	700	263,0-269,0	100	130,0-170,0	300 19,0-25,0
Checking values in brackets			والمراقع والمراقع والمراقع والمراقع والمراقع والمراقع والمراقع والمراقع والمراقع والمراقع والمراقع والمراقع وا		* 1 mm less contro	rod travel than col. 2

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Full-load delivery Control-rod stop Test oil temp 40°C (104°F)	Breakaway	1 (20) Fuel deli-	very characteristics (5	idle	fuel delivery 6	Control rod
rev/min cm³/1000 strokes	rev/min	rev/min	cm ³ /1000 strokes	rev/mir	cm ^{1/1000} strokes	rcv/min mm
1 2	3		5	10	+	
AC-Nr. 4 394 080						
1000 220,0-226,0	1020		209,0-215,0 227,0-233,0	100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 082				400	420 0 470 0	200 25 0
910 190,0	930			100	130,0-170,0	300 25,0
AC-Nr. 4 394 084						
900 160,0-166,0	920	700	139,0-145,0	100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 086						
600 124,0-130,0	620			100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 088						
	720	600	124,0-130,0	100	130,0-170,0	300 19,0-25,0
700 127,0-133,0	720	000	121,0 100,0			
AC-Nr. 4 394 090			404 0 420 0	100	130,0-170,0	300 19,0-25,0
800 139,0-145,0	820	600	124,0-130,0	100	130,0-170,0	300 19,0-23,0
AC-Nr. 4 394 092						
925 157,0-163,0	945	800	145,0-151,0 134,0-140,0	100	130,0-170,0	300 19,0-25,0
		600	134,0-140,0			
AC-Nr. 4 394 094						
1000 180,0-186,0	1020	800 70 0	154,0-160,0 142,0-148,0	100	130,0-170,0	300 19,0-25,0
		700	142,0-140,0			
AC-Nr. 4 394 096						200 40 0 25 0
1050 207,0-213,0	1070	900 800	161,0-175,0 147,0-153,0	100	130,0-170,0	300 19,0-25,0
		800	147,0-155,0			
AC-Nr. 4 394 098					400 0 430 0	200 27 0-22 0
900 187,0-193,0	920	700	162,0-168,0	100	130,0-170,0	300 27,0-33,0
AC-Nr. 4 394 100						
900 200,0-206,0	920	700	184,0-190,0	100	130,0-170,0	300 27,0-33,0
AC-Nr. 4 394 102						
900 203,0-209,0	920	700	209,0-215,0	100	130,0-170,0	300 19,0-25,0
•	320	,,,,	200,0			
AC-Nr. 4 394 104			000 A 000 A	100	130,0-170,0	300 19,0-25,0
750 185,0-191,0	770	600	222,0-228,0	100	130,0-170,0	300 13,0 23,0
AC-Nr. 4 394 106						
800 210,0-218,0	820	600	223,0-229,0	100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 108					4 1 mm lace o	ontrol rod travel than col.
Checking values in brackets n1050 222,0-228,0	1070	900	202,0-208,0	100	130,0-170,0	300 19,0-25,0
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		700	207,0-213,0	T	ootoil IC	20 4440
					estoil-15	00 4113

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		l .	nigh coe	ivery characteristics (56 speed (5b)	1 KDIM	ng point	Low idle speed 5		
1	np. 40°C (104°F) (2) cm³/1000 strokes 2	rev/min	rev/min	cm ³ /1000 strokes	rev/min	cm ³ /1000 strokes	reiv/min mm 8 9		
AC-Nr	4 394 110				1	Į.	1 1 1		
	240,0-246,0	1020	800 600	224,0-230,0 237,0-243,0	100	130,0-170,0	300 19,0-25,0		
AC-Nr.	4 394 112								
	245,0-251,0	1070	900 700	224,0-230,0 237,0-243,0	100	130,0-170,0	300 19,0-25,0		
AC-Nr.	4 394 114								
1000	217,0-223,0	1020	800 600	197,0-203,0 219,0-225,0	100	130,0-170,0	300. 19,0-25,0		
AC-Nr.	4 394 116				•				
900	210,0-216,0	920	700	212,0-218,0	100	130,0~170,0	300 27,0-33,0		
AC-Nr.	. 4 394 118								
1050	269,0-275,0	1070	900	281,0-287,0	100	130,0-170,0	300 19,0-25,0		
AC-Nr.	. 4 394 120		700	293,0-299,0					
1050	234,0-240,0	1070	900 700	246,0-252,0 268,0-274,0	100	130,0-170,0	300 19,0-25,0		
AC-Nr.	. 4 394 122								
1050	262,0-268,0	1070	900 700	279,0-285,0 289,0-295,0	100	130,0-170,0	300 19,0-25,0		
AC-Nr.	. 4 394 124								
1050	241,0-247,0	1070	900 700	265,0-271,0 268,0-274,0	100	130,0-170,0	300 19,0-25,0		
AC-Nr.	. 4 394 126								
900	232,0-238,0	920	700	253,0-259,0	100	130,0-170,0	300 19,0-25,0		
AC-Nr.	. 4 394 128								
750	244,0-250,0	770	700	253,0-259,0	100	130,0-170,0	300 19,0-25,0		
AC-Nr	. 4 394 130								
800	239,0-245,0	820	600	248,0-254,0	100	130,0-170,0	300 19,0-25,0		
AC-Nr	. 4 394 132		ě						
1000	212,0-218,0	1020	800	230,0-236,0	100	130,0-170,0	300 19,0-25,0		
AC-Nr	. 4 394 134								
900	288,0-294,0	920	700	287,0-293,0	100	130,0-170,0	300 27,0-33,0		
AC-Nr	. 4 394 136								
1000	255,0-261,0 values in brackets	1020	800 600	272,0-278,0 270,0-276,0	100		300 19,0-25,0		

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Full-load delivery Control-rod stop		•		Fuel deli	very characteristics 5		fuel delivery 6	Low idle speed 5		
Test oil temp. 40°C (104°F) 2)		1997 1000	speed (50)	idle switch	ing point	Control roc		
rev/min 1	cm ³ /1000 strokes	rev/min 3	49)	rev/min	cm ³ /1000 strokes	rev/min	cm ³ /1000 strokes	rév/mi	n mm	
•		1		-		18	 '	8	9	
	. 4 394 138 239,0-245,0	1070		900 700	233,0-239,0 273,0-279,0	100	130,0-170,0	300	19,0-25,	
AC-Nr	. 4 394 140									
	215,0-221,0	1020		800 600	197,0-203,0 220,0-226,0	100	130,0-170,0	300	19,0-25,	
AC-Nr.	. 4 394 142									
900	222,0-228,0	920		700	254,0-260,0	100	130,0-170,0	300	19,0-25,	
AC-Nr.	. 4 394 144								•	
1050	257,0-263,0	1070		750	272,0-278,0	100	130,0-170,0	300	27,0-33,	
AC-Nr.	. 4 394 148									
1050	295,0-303,0	1075		900	309,0-315,0	100	130,0-170,0	300	25,0	
AC-Nr.	. 4 394 150									
1050	268,0-274,0	1070		900 700	274,0-280,0 280,0-286,0	100	130,0-170,0	300	19,0-25,	
AC-Nr.	. 4 394 152									
1050	262,0-268,0	1070		900 700	267,0-273,0 267,0-273,0	100	130,0~170,0	300	19,0-25,	
AC-Nr.	. 4 394 154									
1050	279,0-285,0	1070		900 700	283,0-289,0 293,0-299,0	100	130,0-170,0	300	19,0-25,	
AC-Nr.	. 4 394 156									
1050	296,0-302,0	1070		900 700	301,0-307,0 309,0-315,0	100	130,0-170,0	300	19,0-25,	
AC-Nr.	4 394 157/15	8								
1050	253,0-256,0	1070		900 700	252,0-258,0 269,0-275,0	100	130,0-170,0	300	19,0-25,	
AC-Nr.	4 394 160									
1050	208,0-214,0	1070		900 700	230,0-235,0 260,0-266,0	100	130,0-170,0	300	19,0-25,	
AC-Nr.	4 394 162									
900	181,0-187,0	920		700	172,0-178,0	100	130,0-170,0	300	19,0-25,	
AC-Nr.	. 4 394 164									
925	176,0-182,0	945		800 700	162,0-168,0 177,0-183,0	100	130,0-170,0	300	19,0-25,	
acking valu	ues in brackets 4 394 166						* 1 mm less control	rod trav	el than col. 2	
MU-141.	4 334 100									

Full-load delivery Control-rod stop Test oil temp. 40°C (104°F) (2	Breakaway	Breakaway (20) Fuel delivery characteria		Starting fuel delivery 6 Idle switching point			Control rod		
rov/min cm³/1000 strokes	rev/min	48 rev/min	cm ³ /1000 strokes	1	cm ³ /1000 strokes	rev/min	İ		
2	3	-	5	6	7	8	9		
AC-Nr. 4 394 168	045	900	251 0-257 0	100	130,0-170,0	300	27 0-33		
925 237,0-243,0	945	800 700	251,0-257,0 269,0-275,0	100	130,0-170,0	300	27,0-33		
AC No. A 20A 470			•						
AC-Nr. 4 394 170 700 218,0-224,0	720	600	240,0-246,0	100	130,0-170,0	300	27.0-33		
	720	000	240,0 240,0	100	130,0 170,0	000	2,,0 00		
AC-Nr. 4 394 176				400	420 0 470 0	200	*0 0 2E		
1050 213,0-219,0	1070	900 700	212,0-218,0 240,0-248,0	100	130,0-170,0	300	19,0-25		
AC-Nr. 4 394 246			,						
1050 211,0-220,0	1055-1075	975 700	237,5-247,0 258,5-269,5	100	130,0-170,0	300	19,0-25		
		600	255,5-266,0						
AC-Nr. 4 394 248									
700 246,0	720	600	263,0	100	130,0-170,0	300	19.0-25		
•	720	000	200,0	,	,.		, , ,		
AC-Nr. 4 394 250	4060 4000			100	130,0-170,0	200	10 0-25		
1050 244,5-254,5	1060-1080			100	130,0-170,0	300	19,0-25		
AC-Nr. 4 394 257									
600 258,0				100	130,0-170,0	300	27,0		
AC-Nr. 4 394 314									
1050 246,0	1070		240,0	100	130,0-170,0	300	19,0-25		
AC-Nr. 4 394 331		700	267,0						
1050 241,0-247,0	1070	900	265,0-271,0	100	130,0-170,0	300	19,0-25		
		700	268,0-274,0						
AC-Nr. 4 394 332									
1050 268,0-274,0	1070	900 700	274,0-280,0 280,0-286,0	100	130,0-170,0	300	19,0-25		
		, 00							
AC-Nr. 4 394 347			004 0 005 0	400	400 0 470 0	202	40.0.00		
1050 269,0-275,0	1070	900 700	281,0-287,0 293,0-299,0	100	130,0-170,0	300	19,0-25		
			,-						
AC-Nr. 4 394 348	4070	000	246 0 252 0	100	130,0-170,0	300	10 0-25		
1050 234,0-240,0	1070	900 700	246,0-252,0 268,0-274,0	100	130,0-1/0,0	300	17,0743		
AC_Nm									
AC-Nr. 4 394 349	1070	900	230,0-236,0	100	130,0-170,0	300	19.0-25		
1050 208,0-214,0	10/0	700	260,0-266,0	100	100,0-170,0	300	1790-63		

Checking values in brackets

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Testoil-ISO 4113

* 1 mm less control rod travel than col. 2

Testoil-ISO 4113

C. Settings for Fuel Injection Pump with Fitted Governor

Full-load delivery Control-rod stop		. 1	(20) Fu	el deli h idle :	very characteristics 59 speed (50)	lidie	_	Low id	le speed 5
	emp. 40°C (104°F) (2	· 1	\sim l			switching point		Control ro	
rev/min	cm ³ /1000 strokes	rev/min	(40) rov	/min	cm ³ /1000 strokes	6	cm ³ /1000 strokes 7	rev/min	9
						1		1	
	. 4 394 350	4070	•	••	070 0 005 0	400	120 0 170 0	200	
1050	262,0-268,0	1070		00 0 0	279,0-285,0 289,0-295,0	100	130,0-170,0	300	19,0-25
AC-Nr	. 4 394 351								
1050	253,0-256,0	1070		00 00	252,0-258,0 269,0-275,0	100	130,0-170,0	300 1	19,0-25
AC-Nr	. 4 394 352								
1050	262,0-268,0	1070		00 00	267,0-273,0 267,0-273,0	100	130,0-170,0	300 1	19,0-25
AC-Nr	. 4 394 353					٠			
1050	279,0-285,0	1070		00 00	283,0-289,0 293,0-299,0	100	130,0-170,0	300	19,0-25
AC-Nr	. 4 394 354								
1050	296,0-302,0	1070		00 00	301,0-307,0 309,0-315,0	100	130,0-170,0	300	19,0-25
AC-Nr	. 4 394 356								
1050	246,0	1070		00 00	240,0 267,0	100	130,0-170,0	300-1	19,0-25
AC-Nr	. 4 394 386								
600	167,0-175,0					100	130,0-170,0	300 2	25,0
AC-Nr	. 4 394 390								
900	259,0-267,0	925	7	00	238,0-246,0	100	130,0-170,0	300	19,0-29
AC-Nr	. 4 394 428								
1000	188,0-196,0	1025	8	00	180,0-187,0	100	130,0-170,0	300 2	25,0
AC-Nr	. 4 394 473								
850	189,0-197,0	875	7	50	185,0-193,0	100	130,0-170,0	325	30,0
AC-Nr	. 4 394 501								
900	175,0	925	7	00	158,0	100	130,0-170,0	300	19,0-25
	. 4 394 521								
	239,0-247,0	1025	7	00	229,0-235,0	100	130,0-170,0	300 2	25,0
	. 4 394 527				-				
900	161,0	925	8	00	151,0	100	130,0-170,0	300	19,0-25
AC-Nr	. 4 394 541								
	202,0-210,5 values in brackets 4 394 550	1060-1080				100	130,0-170,0 *1 mm less cont		
1000	230,5-239,5	1010-1030				100	130,0-170,0	300	19.0-25
יטטט	230,3-233,3	1010-1030				100	13030 17030	500	. , , 0 - 20

C. Settings for Fuel Injection Pump with Fitted Governor

Full-load delivery Control-rod stop	~ l``	Fuel del	ivery characteristics (5 apend (5b)	Startin	ig fuel delivery 6	Low idle speed 5
	2) intermediate speed	~!			hing point	Control rod
rev/min cm³/1000 strokes	rev/min	rev/min	cm ³ /1000 strokes	1	n tm³/1000 strokes	rev/min mm
	-	+	1	6	+'	8 9
AC-Nr. 4 394 561						
1050 258,0	1060-80	900	256,0	100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 564						
1050 244,0	1070	900	234,0	100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 569						
1000 203,0-211,5	1010-1030			100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 590					,	
1050 260,5-271,0	1060-1080			100	130,0-170,0	300 19,0-25,0
•	1000-1000				130,04170,0	300 19,0-25,0
AC-Nr. 4 394 593						
1050 251,5-261,5	1060-1080			100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 703					•	
1050 260,5-271,0	1060-1080	900	267,0-278,0	100	130,0-170,0	300 19,0-25,0
		700	267,0-278,0			
AC-Nr. 4 394 705/7					•	
1050 258,0	1060-80	900	256,0	100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 707						
1050 244,0	1070	900	234,0	100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 718						
955 198,0-213,0	965-975	800	196,0-210,0	100	.130,0-170,0	300 21,0-27,0
AC-Nr. 4 394 719						
875 166,0-168,0	915	600	142 5-146 5	100	130,0-170,0	300 21,0-27,0
	313	000	142,5 140,5	100	130,0 170,0	300 21,0-27,0
AC-Nr. 4 394 733	4000					
1000 255,0-261,0	1020	800 600	272,0-278,0 270,0-276,0	100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 740/7	A 1					
1020 213,0-226,0	1030-1040	915	208,0-218,0			
	1030-1040	313	200,0-210,0			
AC-Nr. 4 394 744						
1050 258,0	1060-1080	900	256,0	100	130,0-170,0	300 19,0-25,0
AC-Nr. 4 394 745						
950 208,0-214,0	990	750	196,0-202,0	100	130,0-170,0	300 21,0-27,0
AC-Nr. 4 394 746						
875 161,0-165,0	890	600	140,0-144,0	100	130,0-170,0	300 19,0-25,0
ecking values in brackets AC-Nr. 4 394 771			•		•	rod travel than col. 2
800 113,0-119,0	820	600	102,0-108,0	100	130,0-170,0	300 19,0-25,0
0,611-0,611	020	000	102,0-100,0	100	130,0-1/0,0	300 13,0-23,0

C. Settings for Fuel Injection Pump with Fitted Governor

Southerword Region 100 1		Full-load d		Breakaway (2)		ivery characteristics (5		fuel delivery (6)	Low idle	speed 5)
Territory Control Co						speed (50)	idle switchi	ing point		
AC-Nr. 4 394 773 800 125,0-131,0 820 600 134,0-140,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 775 1025 192,0-198,0 1045 900 180,0-186,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 777 1000 200,0-206,0 1020 800 189,0-196,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 781 1025 230,0-236,0 1040 900 207,0-213,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 783 1000 227,0-233,0 1020 800 197,0-203,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 785 1000 235,0-241,0 1020 700 263,0-269,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 787 1000 220,0-226,0 1020 800 227,0-233,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 789 910 190,0 930 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 791 900 160,0-166,0 920 700 139,0-145,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 793 600 124,0-130,0 620 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 795 700 127,0-133,0 720 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 144,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 AC-Nr. 4		rev/min	i l		1	1	1	cm ³ /1000 strokes		mm
800 125,0-131,0 820 600 134,0-140,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 775 1025 192,0-198,0 1045 900 180,0-186,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 777 1000 200,0-206,0 1020 800 180,0-186,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 781 1025 230,0-236,0 1040 900 207,0-213,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 781 1020 227,0-233,0 1020 800 197,0-203,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 785 1000 235,0-241,0 1020 700 263,0-269,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 787 1000 220,0-226,0 1020 800 227,0-233,0 1020 800 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 789 910 190,0 930 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 795 800 124,0-130,0 620 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 797 800 127,0-133,0 720 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 134,0-140,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 134,0-140,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 100 130,0-180,0 100 130,0-180,0 300 19,0-25,0 AC-Nr. 4 394 801 100 130,0-180,0 100 130,0-180,0 300 19,0-25,0 AC-Nr. 4 394 801 100 130,0-180,0 100 130,0-180,0 300 19,0-25,0 AC-Nr. 4 394 801 100 100 100 100 100 100 100 100 100				3	-	5	16	7	8	9
AC-Nr. 4 394 775 1025 192,0-198,0 1045 900 180,0-186,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 777 1000 200,0-206,0 1020 800 189,0-195,0 100 130,0-170,0 300 19,0-25,0 600 189,0-195,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 781 1025 230,0-236,0 1040 900 207,0-213,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 783 1000 227,0-233,0 1020 800 197,0-203,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 785 1000 235,0-241,0 1020 700 263,0-269,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 787 1000 220,0-226,0 1020 800 209,0-215,0 100 130,0-170,0 300 19,0-25,0 600 227,0-233,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 789 910 190,0 930 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 791 900 160,0-166,0 920 700 139,0-145,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 795 700 127,0-133,0 720 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 145,0-151,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 154,0-150,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 154,0-150,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 145,0-151,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 154,0-150,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 154,0-150,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 1000 180,0-186,0 1020 800 154,0-160,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 1000 180,0-186,0 1020 800 154,0-160,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 1000 180,0-186,0 1020 800 154,0-160,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 1000 180,0-186,0 1020 800 154,0-160,0 100 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 1000 180,0-186,0 1020 800 154,0-160,0 100 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801										
1025 192,0-198,0 1045 900 180,0-186,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 777 1000 200,0-206,0 1020 800 180,0-186,0 100 130,0-170,0 300 19,0-25,0 189,0-195,0 100 130,0-170,0 300 19,0-25,0 100 185,0-195,0 955-65 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 120,0-23,0 100 120,0-23,0 100 120,0-23,0 100 120,0-23,0 100 120,0-25,0 100 120,0-25,0 100 120,0-25,0 100 120,0-170,0 300 19,0-25,0 100 120,0-170,0 300 19,0-25,0 100 120,0-170,0 100 120,0-170,0 300 19,0-25,0 100 120,0-170,0 100 1		800	125,0-131,0	820	600	134,0-140,0	100	130,0-170,0	300 19	9,0-25,0
AC-Nr. 4 394 777 1000 200,0-206,0 1020 800 189,0-195,0 100 130,0-170,0 300 19,0-25,0 800 189,0-195,0 100 130,0-170,0 300 19,0-25,0 100 185,0-195,0 955-65 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 120,0-226,0 1020 800 227,0-233,0 100 130,0-170,0 300 19,0-25,0 100 120,0-226,0 1020 800 227,0-233,0 100 130,0-170,0 300 19,0-25,0 100 120,0-25,0 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 120,0-166,0 920 700 139,0-145,0 100 130,0-170,0 300 19,0-25,0 100 120,0-130,		AC-Nr.	4 394 775							
1000 200,0-206,0 1020 800 189,0-195,0 100 130,0-170,0 300 19,0-25,0 600 189,0-195,0 100 130,0-170,0 300 19,0-25,0 100 185,0-195,0 955-65 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 120,0-25,0 100 124,0-130,0 100 124,0-130,0 620 124,0-130,0 120,0 124,0-130,0 120,0 124,0-130,0 120,		1025	192,0-198,0	1045	900	180,0-186,0	100	130,0-170,0	300 19	9,0-25,0
AC-Nr. 4 394 779 940 185,0-195,0 955-65 AC-Nr. 4 394 781 1025 230,0-236,0 1040 900 207,0-213,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 783 1000 227,0-233,0 1020 800 197,0-203,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 785 1000 235,0-241,0 1020 700 263,0-269,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 787 1000 220,0-226,0 1020 800 209,0-215,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 789 910 190,0 930 100 130,0-170,0 300 25,0 AC-Nr. 4 394 791 900 160,0-166,0 920 700 139,0-145,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 793 600 124,0-130,0 620 102,0-130,0 620 102,0-130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 795 700 127,0-133,0 720 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 134,0-140,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 Control of the state of th		AC-Nr.	4 394 777							
AC-Nr. 4 394 779 940 185,0-195,0 955-65 AC-Nr. 4 394 781 1025 230,0-236,0 1040 900 207,0-213,0 700 209,0-215,0 AC-Nr. 4 394 783 1000 227,0-233,0 1020 800 197,0-203,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 785 1000 235,0-241,0 1020 700 263,0-269,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 787 1000 220,0-226,0 1020 800 209,0-215,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 789 910 190,0 930 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 791 900 160,0-166,0 920 700 139,0-145,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 793 600 124,0-130,0 620 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 795 700 127,0-133,0 720 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 145,0-151,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 Control of the state		1000	200,0-206,0	1020			100	130,0-170,0	300 19	9,0-25,0
940 185,0-195,0 955-65 AC-Nr. 4 394 781 1025 230,0-236,0 1040 900 207,0-213,0 100 130,0-170,0 300 19,0-25,0 209,0-215,0 100 130,0-170,0 300 19,0-25,0 209,0-215,0 100 130,0-170,0 300 19,0-25,0 209,0-215,0 100 130,0-170,0 300 19,0-25,0 209,0-215,0 100 130,0-170,0 300 19,0-25,0 209,0-215,0 100 130,0-170,0 300 19,0-25,0 209,0-215,0 100 130,0-170,0 300 19,0-25,0 209,0-215,0 100 130,0-170,0 300 19,0-25,0 209,0-215,0 100 130,0-170,0 300 19,0-25,0 209,0-215,0 100 130,0-170,0 300 19,0-25,0 209,0-215,0 100 130,0-170,0 300 19,0-25,0 209,0-215,0 100 130,0-170,0 300 19,0-25,0 209,0-215,0 100 130,0-170,0 300 19,0-25,0 209,0-215,0 100 130,0-170,0 300 19,0-25,0 209,0-215,0 100 130,0-170,0 300 19,0-25,0 209,0-215,0 100 130,0-170,0 300 19,0-25,0 209,0-215,0 100 130,0-170,0 300 19,0-25,0 209,0-215,0 100 130,0-170,0 300 19,0-25,0 209,0-215,					600	189,0-195,0				
AC-Nr. 4 394 781 1025 230,0-236,0 1040 900 207,0-213,0 100 130,0-170,0 300 19,0-25,0 209,0-215,0 100 130,0-170,0 300 19,0-25,0 209,0-215,0 100 130,0-170,0 300 19,0-25,0 209,0-215,0 100 130,0-170,0 300 19,0-25,0 235,0-241,0 1020 700 263,0-269,0 100 130,0-170,0 300 19,0-25,0 227,0-233,0 100 220,0-226,0 1020 800 209,0-215,0 100 130,0-170,0 300 19,0-25,0 227,0-233,0										
1025 230,0-236,0 1040 900 207,0-213,0 100 130,0-170,0 300 19,0-25,0 700 209,0-215,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 785 1000 235,0-241,0 1020 700 263,0-269,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 787 1000 220,0-226,0 1020 800 209,0-215,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 789 910 190,0 930 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 791 900 160,0-166,0 920 700 139,0-145,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 793 600 124,0-130,0 620 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 795 700 127,0-133,0 720 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 134,0-140,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 881 Cacking values in backing a large transcription of travel transcol. 2 1000 180,0-170,0 300 19,0-25,0 1000 1				955-65			100	130,0-170,0	300 19	9,0-25,0
AC-Nr. 4 394 783 1000 227,0-233,0 1020 800 197,0-203,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 785 1000 235,0-241,0 1020 700 263,0-269,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 787 1000 220,0-226,0 1020 800 209,0-215,0 100 130,0-170,0 300 19,0-25,0 600 227,0-233,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 789 910 190,0 930 100 130,0-170,0 300 25,0 AC-Nr. 4 394 791 900 160,0-166,0 920 700 139,0-145,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 793 600 124,0-130,0 620 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 795 700 127,0-133,0 720 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 134,0-140,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 881 Chacking values in backing 1000 180,0-186,0 1020 800 154,0-160,0 700 142,0-148,0 100 130,0-170,0 300 19,0-25,0										
AC-Nr. 4 394 783 1000 227,0-233,0 1020 800 197,0-203,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 785 1000 235,0-241,0 1020 700 263,0-269,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 787 1000 220,0-226,0 1020 800 209,0-215,0 100 130,0-170,0 300 19,0-25,0 600 227,0-233,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 789 910 190,0 930 100 130,0-170,0 300 25,0 AC-Nr. 4 394 791 900 160,0-166,0 920 700 139,0-145,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 793 600 124,0-130,0 620 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 795 700 127,0-133,0 720 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 145,0-151,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 100 100 100 100 100 100 100 100 100		1025 2	230,0-236,0	1040			100	130,0-170,0	300 19	,0-25,0
1000 227,0-233,0 1020 800 197,0-203,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 785 1000 235,0-241,0 1020 700 263,0-269,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 787 1000 220,0-226,0 1020 800 209,0-215,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 789 910 190,0 930 100 130,0-170,0 300 25,0 AC-Nr. 4 394 791 900 160,0-166,0 920 700 139,0-145,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 793 600 124,0-130,0 620 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 795 700 127,0-133,0 720 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 145,0-151,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 100 180,0-186,0 1020 800 154,0-160,0 700 142,0-148,0 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,		AC _ N \	A 204 702		, , ,	203,0 213,0				
AC-Nr. 4 394 785 1000 235,0-241,0 1020 700 263,0-269,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 787 1000 220,0-226,0 1020 800 209,0-215,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 789 910 190,0 930 100 130,-170,0 300 25,0 AC-Nr. 4 394 791 900 160,0-166,0 920 700 139,0-145,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 793 600 124,0-130,0 620 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 795 700 127,0-133,0 720 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 145,0-151,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 Checking values in brackets 1000 180,0-186,0 1020 800 154,0-160,0 700 130,0-170,0 300 19,0-25,0				1020	200	107 0-202 0	100	120 0 170 0	250 40	
1000 235,0-241,0 1020 700 263,0-269,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 787 1000 220,0-226,0 1020 800 227,0-233,0 100 130,0-170,0 300 19,0-25,0 600 227,0-233,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 789 910 190,0 930 100 130,0-170,0 300 25,0 AC-Nr. 4 394 791 900 160,0-166,0 920 700 139,0-145,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 793 600 124,0-130,0 620 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 795 700 127,0-133,0 720 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 145,0-151,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 Checking values in practices 1000 180,0-186,0 1020 800 154,0-160,0 700 142,0-148,0				1020	000	197,0-203,0	100	130,0-1/0,0	300 19	7,0-25,0
AC-Nr. 4 394 787 1000 220,0-226,0 1020 800 209,0-215,0 100 130,0-170,0 300 19,0-25,0 600 227,0-233,0 100 130,0-170,0 300 19,0-25,0 600 227,0-233,0 100 130,-170,0 300 19,0-25,0 AC-Nr. 4 394 789 910 190,0 930 100 130,-170,0 300 25,0 AC-Nr. 4 394 791 900 160,0-166,0 920 700 139,0-145,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 793 600 124,0-130,0 620 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 795 700 127,0-133,0 720 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 145,0-151,0 100 130,0-170,0 300 19,0-25,0 600 134,0-140,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0				1020	700	262 0 260 0	400	400 0 470 0		
1000 220,0-226,0 1020 800 209,0-215,0 100 130,0-170,0 300 19,0-25,0 600 227,0-233,0 100 130,0-170,0 300 19,0-25,0 600 227,0-233,0 100 130,-170,0 300 25,0 AC-Nr. 4 394 791 900 160,0-166,0 920 700 139,0-145,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 793 600 124,0-130,0 620 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 795 700 127,0-133,0 720 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 145,0-151,0 100 130,0-170,0 300 19,0-25,0 600 134,0-140,0 100 130,0-170,0 300 19,0-25,0 600 134,0-140,0 100 130,0-170,0 300 19,0-25,0 600 134,0-140,0 100 130,0-170,0 300 19,0-25,0 1000 180,0-186,0 1020 800 154,0-160,0 100 130,0-170,0 300 19,0-25,0 700 142,0-148,0				1020	700	263,0-269,0	100	130,0-1/0,0	300 19	,0-25,0
AC-Nr. 4 394 789 910 190,0 930 100 130,-170,0 300 25,0 AC-Nr. 4 394 791 900 160,0-166,0 920 700 139,0-145,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 793 600 124,0-130,0 620 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 795 700 127,0-133,0 720 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 145,0-151,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 Checking values in brackets 1000 180,0-186,0 1020 800 154,0-160,0 100 130,0-170,0 300 19,0-25,0 700 142,0-148,0				4000	222					
910 190,0 930 100 130,-170,0 300 25,0 AC-Nr. 4 394 791 900 160,0-166,0 920 700 139,0-145,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 793 600 124,0-130,0 620 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 795 700 127,0-133,0 720 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 145,0-151,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 Checking values in brackets 1000 180,0-186,0 1020 800 154,0-160,0 700 142,0-148,0		1000 2	.20,0~220,0	1020			100	130,0-170,0	300 19	,0-25,0
910 190,0 930 100 130,-170,0 300 25,0 AC-Nr. 4 394 791 900 160,0-166,0 920 700 139,0-145,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 793 600 124,0-130,0 620 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 795 700 127,0-133,0 720 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 145,0-151,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 Checking values in brackets 1000 180,0-186,0 1020 800 154,0-160,0 700 142,0-148,0	1	AC-Nr.	4 394 789							
AC-Nr. 4 394 791 900 160,0-166,0 920 700 139,0-145,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 793 600 124,0-130,0 620 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 795 700 127,0-133,0 720 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 145,0-151,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 Checking values in brackets 1000 180,0-186,0 1020 800 154,0-160,0 700 142,0-148,0				930			100	130170.0	300 25	.0
900 160,0-166,0 920 700 139,0-145,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 793 600 124,0-130,0 620 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 795 700 127,0-133,0 720 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 145,0-151,0 100 130,0-170,0 300 19,0-25,0 600 134,0-140,0 100 130,0-170,0 300 19,0-25,0 600 134,0-140,0 100 130,0-170,0 300 19,0-25,0 600 134,0-140,0 100 130,0-170,0 300 19,0-25,0 600 134,0-140,0	,		•					,	000 20	,0
AC-Nr. 4 394 793 600 124,0-130,0 620 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 795 700 127,0-133,0 720 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 145,0-151,0 100 130,0-170,0 300 19,0-25,0 600 134,0-140,0 AC-Nr. 4 394 801 Checking values in brackets 1000 180,0-186,0 1020 800 154,0-160,0 700 142,0-148,0				920	700	139 0-145 0	100	130 0_170 0	200 10	0-25 0
600 124,0-130,0 620 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 795 700 127,0-133,0 720 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 145,0-151,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 Checking values in brackets 1000 180,0-186,0 1020 800 154,0-160,0 700 142,0-148,0				320	700	133,0-143,0	100	130,0-170,0	300 13	,0-25,0
AC-Nr. 4 394 795 700 127,0-133,0 720 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 145,0-151,0 100 130,0-170,0 300 19,0-25,0 600 134,0-140,0 AC-Nr. 4 394 801 Checking values in brackets 1000 180,0-186,0 1020 800 154,0-160,0 700 142,0-148,0				620			100	120 O_170 O	200 40	0.25.0
700 127,0-133,0 720 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 145,0-151,0 100 130,0-170,0 300 19,0-25,0 600 134,0-140,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 801 100 180,0-186,0 1020 800 154,0-160,0 100 130,0-170,0 300 19,0-25,0 700 142,0-148,0				020			100	130,0-170,0	300 19	,0-25,0
AC-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 145,0-151,0 100 130,0-170,0 300 19,0-25,0 600 134,0-140,0 AC-Nr. 4 394 801 Checking values in brackets 1000 180,0-186,0 1020 800 154,0-160,0 100 130,0-170,0 300 19,0-25,0 700 142,0-148,0				720	600	124 0 120 0	100	420 0 170 0	200 10	0.05.0
800 139,0-145,0 820 600 124,0-130,0 100 130,0-170,0 300 19,0-25,0 AC-Nr. 4 394 799 925 157,0-163,0 945 800 145,0-151,0 100 130,0-170,0 300 19,0-25,0 600 134,0-140,0 AC-Nr. 4 394 801 100 130,0-186,0 100 130,0-170,0 300 19,0-25,0 100 130,0-170,0 300 19,0-25,0 100 180,0-186,0 1020 800 154,0-160,0 100 130,0-170,0 300 19,0-25,0 700 142,0-148,0				720	000	124,0-130,0	100	130,0-170,0	300 19	,0-25,0
AC-Nr. 4 394 799 925 157,0-163,0 945 800 145,0-151,0 100 130,0-170,0 300 19,0-25,0 600 134,0-140,0 AC-Nr. 4 394 801 1 1 mm less control rod travel than col. 2 1000 180,0-186,0 1020 800 154,0-160,0 100 130,0-170,0 300 19,0-25,0 700 142,0-148,0				000	600	404 0 400 0	400	108 0 470 0		
925 157,0-163,0 945 800 145,0-151,0 100 130,0-170,0 300 19,0-25,0 600 134,0-140,0 AC-Nr. 4 394 801 100 130,0-186,0 1020 800 154,0-160,0 100 130,0-170,0 300 19,0-25,0 700 142,0-148,0	Č	1 000	39,0-145,0	820	600	124,0-130,0	100	130,0-1/0,0	300 19	,0-25,0
AC-Nr. 4 394 801 Checking values in brackets 1000 180,0-186,0 1020 800 154,0-160,0 100 130,0-170,0 300 19,0-25,0 700 142,0-148,0										
AC-Nr. 4 394 801 Checking values in brackets 1000 180,0-186,0 1020 800 154,0-160,0 100 130,0-170,0 300 19,0-25,0 700 142,0-148,0	9	125	57,0-163,0	945		•	100	130,0-170,0	300 19	,0-25,0
1000 180,0-186,0 1020 800 154,0-160,0 100 130,0-170,0 300 19,0-25,0 700 142,0-148,0	٨	C_N-	A 30A 901		- 	,				
700 142,0-148,0	C	recking valu	ies in brackets	1020	800	154.0-160 G	100			
l estoil-ISO 4113	•	,	,- 100,0							
								estoil-IS	O Z	1113

En

Control-	d delivery rod stop	Breakaway	(2)	Fuel defit high idle s	very characteristics (5a)	idie	•	Low ic	lle speed 5	
Test oil : rev/min 1	cm ² /1000 strokes	rev/min		rev/min 4	cm ³ /1000 strokes	Ì	ng poiกt cm ³ /1000 strokes 7	rév/mir 8	Control rod travel mm	
		1						1		
AC-Nr	·. 4 394 799									
925	157,0-163,0	945		800 600	145,0-151,0 134,0-140,0	100	130,0-170,0	300	19,0-25,0	
1000	180,0-186,0	1020		800 700	154,0-160,0 142,0-148,0	100	130,0-170,0	300	19,0-25,0	
AC-Ni	r. 4 394 803									
1050	207,0-213,0	1070		900 800	161,0-175,0 147,0-153,0	100	130,0-170,0	300	19,0-25,0	
AC-Ni	r. 4 394 805									13
900	187,0-193,0	920		700	162,0-168,0	100	130,0-170,0	300	27,0-33,0	
AC-N: 900	r. 4 394 807 200,0-206,0	920		700	184,0-190,0	100	130,0-170,0	300	27,0-33,0	j
		320			,.					19
900	r. 4 394 809 203,0-209,0	920		700	209,0-215,0	100	130,0-170,0	300	19,0-25,0	
AC-N	r. 4 394 811									
750	185,0-191,0	770		600	222,0-228	100	130,0-170,0	300	19,0-25,0	_
AC-N	r. 4 394 813									
800	210,0-218,0	820		600	223,0-229,0	100	130,0-170,0	300	19,0-25,0	
AC-N	r. 4 394 815									
1050	222,0-228,0	1070		900 700	202,0-208,0 207,0-213,0	100	130,0-170,0	300	19,0-25,0	l
AC-N	r. 4 394 817									
1000	240,0-246,0	1020		800 600	224,0-230,0 237,0-243,0	100	130,0-170,0	300	19,0-25,0)
AC-N	r. 4 394 819									
1050	245,0-251,0	1070		900 700	224,0-230,0 237,0-243,0	100	130,0-170,0	300	19,0-25,0	
AC-N	r. 4 394 821									
	217,0-223,0	1020		800 600	197,0-203,0 219,0-225,0	100	130,0-170,0	300	19,0-25,0	
	Ir. 4 394 823	020		700	212,0-218,0	100	130,0-170,0	300	27,0-33,0)
900	210,0-216,0	920		700	212,0-210,0	100	100,0 170,0	500	,0 00,0	-
	Ir. 4 394 825	4070		ሰሰበ	281,0-287,0	100	130,0-170,0	300	19,0-25,0)
	269,0-275,0 values in brackets	1070		900 700	293,0-299,0	100	* 1 mm less contr			-
•	values in brackets Vr. 4 394 827						٠.			
1050		1070		900	246,0-252,0	100	130,0-170,0	300	19,0-25,0	0
. 500	,0,0			700	268,0-274,0					

C.	Settings for l	Fuel Inject	ion Pump	with Fitted	Governor	
		Constant	(A) Sunt delline	and a state of the Color	terting had delivery	1

Full-load of Control-ro		Breakaway	(20)	Fuel deli high idle	very characteristics 58 speed 56	Idle	fuel delivery 6	Low i	dle speed 5 Control ro
rev/min	cm³/1000 strokes	rev/min	49	rev/min	cm ³ /1000 strokes	rev/min	cm ³ /1000 strokes	rev/mai	travel
1	2	3		-	5	6	7	8	+*
AC-Nr.	4 394 829								
	262,0-268,0	1070			279,0-285,0	100	130,0-170,0	300	19,0-25
				700	289,0-295,0				
AC-Nr.	4 394 831								
1050	241,0-247,0	1070		900	265,0-271,0	100	130,0-170,0	300	19,0-25
				700	268,0-274,0				
AC-Nr.	4 394 833								
900	232,0-238,0	920		700	253,0-259,0	100	130,0-170,0	300	19,0-25
AC No	4 394 835		•						
		770		700	253,0-259,0	100	130,0-170,0	300	19,0-25
	244,0-250,0	770		, 00	200,0 200,0			· - -	
	4 394 837				040 0 054 0	400	420 0 470 0	200	19,0-25
800	239,0-245,0	820		600	248,0-254,0	100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 839								
1000	212,0-218,0	1020		800	230,0-236,0	100	130,0-170,0	300	19,0-25
AC-Nr.	, 4 394 841								
900	288,0-294,0	920		700	287,0-293,0	100	130,0-170,0	300	27,0-33
	4 394 843	4000		000	272 0 279 0	100	130,0-170,0	300	19,0-25
1000	255,0-261,0	1020		800 600	272,0-278,0 270,0-276,0	100	130,0-170,0	300	15,0 20
	. 4 394 845	4070		900	233,0-239,0	100	130,0-170,0	300	19,0-25
1050	239,0-245,0	1070		700	273,0-279,0	100	130,0 170,0	000	13,0 10
AC No	A 20A 9A7								
	. 4 394 847 215,0-221,0	1020		800	197,0-203,0	100	130,0-170,0	300	19,0-25
1000	213,U-221,U	1020		600	220,0-226,0	, 50	,,.		
AC_N-	. 4 394 849								
900	222,0-228,0	920		700	254,0-260,0	100	130,0-170,0	300	19,0-25
	•	J-4					· · · · · · · · · · · · · · · · · · ·		
	. 4 394 851	4070		750	272 0 270 0	100	130,0-170,0	3 ሀሀ	27,0-3
1050	257,0-263,0	1070		750	272,0-278,0	100	130,0-1/0,0	300	£1 5U-3.
AC-Nr	. 4 394 853								
1050	295,0-303,0	1075		900	309,0-315,0	100	130,0-170,0	300	25,0
AC-Nr	. 4 394 857								
	262,0-268,0	1070		900	267,0-273,0	100	130,0-170,0	300	19,0-2
	alues in brackets			700	267,0-273,0		* 1 mm less conti	rol rod tra	svel than col
	. 4 394 861								
	296,0-302,0	1070		900	301,0-307,0	100	130,0-170,0	300	19,0-2
. 550	,			700	309,0-315,0				

C	Settings for	Fuel Injection	Pump with	Fitted	Governor
v.	Deffilias in	Lagi mjeste			

Full-load d Control-ro	elivery d stop np. 40°C (104°F) 2	Breakaway (20) Fuel deli high idle :	very characteristics (5e) speed (5b)	Idle	fuel delivery 6	LOW 1d	le speed 5) Control rod
ev/min	lcm ³ /1000 strokes	rev/min 4a	rev/min	cm ³ /1000 strakes	rev/min	cm ³ /1000 strokes	rev/min	travel mm
easum)	2	3	4	5	6	7	8	9
				i	i	1	1	,
AC-Nr.	4 394 863							
1050	253,0-256,0	1070	900 700	252,0-258,0 269,0-275,0	100	130,0-170,0	300	19,0-25,
AC-Nr.	. 4 394 865							
1050	208,0-214,0	1070	900 700	230,0-236,0 260,0-266,0	100	130,0-170,0	300	19,0-25,
AC-Nr.	. 4 394 867							
900	181,0-187,0	920	700	172,0-178,0	100	130,0-170,0	300	19,0-25,
AC-Nr	. 4 394 869							
925	176,0-182,J	945	800	162,0-168,0	100	130,0-170,0	300	19,0-25,
-	,		700	177,0-183,0				
AC-Nr	. 4 394 871							
900	173,0-179,0	920	800	160,0-166,0	100	130,0-170,0	300	19,0-25
AC-Nr	. 4 394 873							
925	237,0-243,0	945	800	251,0-257,0	100	130,0-170,0	300	27,0-33
	20,,0 2.0,0		700	269,0-275,0				
AC-Nr	. 4 394 875							
700	218,0-224,0	720	600	240,0-246,0	100	130,0-170,0	300	27,0-33
AC_N>	. 4 394 877							
	213,0-219,0	1060-1080	900	212,0-218,0	100	130,0-170,0	300	19,0-25
1050	210,0 210,0		700	240,0-246,0				
AC-Nr	. 4 394 879							
	211,0-220,0	1055-1075		237,5-247,0	100	130,0-170,0	300	19,0-25
			700 600	258,5-269,5 255,5-266,0				
			300					
	. 4 394 881	700	600	262.0	100	130,0-170,0	3UU	10 0-25
700	246,0	720	600	263,0	100	130,0-170,0	300	13,0-23
AC-Nr	. 4 394 883							
1050	244,5	1060-1080		254,5	100	130,0-170,0	300	19,0-25
AC-Nr	. 4 394 885							
600	258,0				100	130,0-170,0	300	27,0
AC-Nr	. 4 394 891			•				
600	167,0-175,0	620			100	130,0-170,0	300	25,0
Thecking	values in brackets	025	700	238,0-246,0	100	1 mm less con 130,0-170,0		
900	259,0-267,0	925	700	230,0-240,0	100	19030 17030	. 550	, 0 2 2

ALO 16,0 a -16-

C. Settings for Fu				Versi	tuel delivery 6	low id!	Low idle speed 5)		
Full-load delivery Control-rod stop	. [high idle	very characteristics (5e speed (50)	Idle	Tuel delivery 6	1	Control rod		
Test oil temp 40°C (104°F) (2) rev/min cm³/1000 strokes	' 1	rev/min		1	cm ³ /1000 strokes	rev/min	travel mm		
1 2	3	4	5	6	7	8	9		
0 11 4 204 005	•	•	•	,	•	•	•		
AC-Nr. 4 394 895	4025	800	180,0-187,0	100	130,0-170,0	300 2	5,0		
1000 188,0-196,0	1025	800	100,0-107,0	.00	,		-		
AC-Nr. 4 394 897									
850 189,0-197,0	875	750	185,0-193,0	100	130,0-170,0	325 3	0,0		
AC-Nr. 4 394 899									
	925	700	158,0	100	130,0-170,0	300 1	9,0-25,		
9001 175,0	723		,.		•				
AC-Nr. 4 394 905				4.00	400 0 470 0	200 2	E 0		
1000 239,0-247,0	1025	700	229,0-235,0	100	130,0-170,0	300 2	J,U		
AC-Nr. 4 394 907				•					
900 161,0	925	800	151,0	100	130,0-170,0	300 1	9,0-25,		
·	•								
AC-Nr. 4 394 909				100	130,0-170,0	300 1	9,0-25,		
1050 202,0-210,5	1060-1080			100	130,0-170,0	500 .	3,0 20,		
AC-Nr. 4 394 911									
1000 230,5-239,5	1010-1030			100	130,0-170,0	300 1	9,0-25,		
AC-Nr. 4 394 915									
	1010-1030			100	130,0-170,0	300 1	9,0-25,		
1000 203,0-211,5	1010-1030								
AC-Nr. 4 394 917				400	420 0 470 0	200 4	0 0-25		
1050 260,5-271,0	1060-1080			100	130,0-170,0	300	9,0-25		
AC-Nr. 4 394 919									
1050 215,5-261,5	1060-1080			100	130,0-170,0	300	19,0-25		
•									
AC-Nr. 4 394 921	4000 4000	חחה	267,0-278,0	100	130,0-170,0	300	19.0-25		
1050 260,5-271,0	1060-1080	900 700	267,0-278,0	100	100,0 170,0		,		
			•						
AC-Nr. 4 394 925			004.0	400	130,0-170,0	300	19 0-25		
1050 244,0	1070	900	234,0	100	130,0-1/0,0	300	1390-23		
AC-Nr. 4 394 997									
900 173,0-179,0	920	800	160,0-166,0	100	130,0-170,0	300	19,0-25		
330 170,0 173,0	2 = =								

Testoil-ISO 4113

Checking values in brackets

En

* 1 mm less control rod travel than col. 2

BOSCH		S. IP ASSEMBLY	Edition: 05. 12. 89 (2)					
Pump: Regulator:	PE 8 P 12 RE 30	20 A 920/4 LS 71	Type numb	er: 0 412 62 er: 0 421 89 IDENT. NO.:	007			
IP ASSEMBLY	0 402 698	802						
Customer-specifi					Min	Max		
Customer: Engine:	Scania DSC 140	14	22202022022022	**********		:22233		
Output kW:	347	/-	PC mark	Cyl. No.	1			
at 1/min:			Pulse wheel					
		Min Max	position (PC cam)	°CS	0 of 0	S CYL1		
建建在海绵排泄的黑色公司等等等	*****		Tolerance	+/-°CS	0.2			
TEST PR	EREQU	ISITES	P Tolerance	+/-°CS	0.5			
Test oil inlet			Section	В -				
temperature	°C	38 42	Actuator test - Check values	denoted by *	рп			
Overflow valve		1 417 413 025	- Assembly warm	-up time: 3	mins. a	it		
7-1-4	.	1 5	n = 600 1/min	, $U/Norm = 2$	2.5 V			
Inlet pressure	bar	1.5	CONTROL-ROD PIC	KUP SETTING				
Overflow	1/h	100 120	Test speed	1/min	0			
Calibrating nozz	le-		Setting value					
holder assembly		1 688 901 019						
0	how	207 210	U/Norm Control-rod	V	3.10			
Opening pressure	Dar	207 210	travel	mm	12.95	13.05		
Perforated plate diameter	anon .	0.8	P Control-rod travel	mm	12.90	13.10		
GIGHICUCI		0.0						
Test pressure		1 680 750 015	Check value					
line Dimensions:		1 000 /30 013	U/Norm	v	1.70			
Outer diameter	mn	6.00	Control-rod			- 10		
x wall thickness		1.50 600	travel P Control-rod	mm	5.90	6.40		
x length	m 			mm	5.85	6.45		
TEST SPE	CIFIC	ATIONS	Stop position					
	A -		U/Norm	v	min.			
Setting values of			Control-rod	mm	0.5	1.0		
- Check values d - No basic setti			P Control-rod	mut	0.5	1.0		
setting under		,	travel	mm	0.4	1.1		
PORT CLOSING			SPEED SENSOR SI	GNALS				
PC setting cyl.		1	- Test with con	trol rod in	stop po	sition		
Test pressure	bar	25 27	Spood	1/min	60			
Prestroke (from BDC)	mm	5.0 5.1	Speed pos.amplitud	l/min e V	0.8	2.0		
Prestroke	400		P pos.amplitud		0.6	3.0		
(from BDC)	mm	4,95 5.15	Speed	1/min	600			
Control-rod	mm	9.0 12.0	Speed Difference	Timtn	550			
Cam sequence		1 - 2 - 7 -	Amplitude to		_			
		3 - 4 - 5 - 6 - 8	amplitude	V	max. 1	. • 4		
PC difference	°CS	45 each						
tolerance	+/-°CS	0.50		Come Survey) an			
tolerance	+/-°CS	0.75		Continued	kon nex	r page		

Section C-

Injection pump with actuator

- Check values denoted by "P"

PUEL DELIVERY TEST AND SETTING

Test point V 1

Speed	1/min	700	
U/Norm	V	3.18	
Fuel delivery	cm3/1000str		228.0
P Fuel delivery	cm3/1000str	223.0	231.0
Dispersion	cm3/1000str		
P Dispersion	cm3/1000str	9.0	
Test point L1			
Speed	1/min	225	
U/Norm	V	1.6	
Fuel delivery	cm3/1000str		20.0
P Fuel delivery	cm3/1000str	13.0	23.0
Dispersion	cm3/1000str		
P Dispersion	cm3/1000str		
-			

BOSCH INJECTION PUMP TEST SPECIFICATIONS

Observe notes in remark column

: PEU 2.5 F Test sheet

Date of manufacture :

: 10.12.1991 Edition : 05.07.1989 Replaces : ISO 4113 Test oil

Injection pump : VE4/9E2075 R 190

Type No. : 0 460 494 999

Customer Ident. No. :

Customer-specific details Customer : Peugeot

: XD 3 T Engine

KW : 77 Output 1/min : 4150 Speed

TEST BENCH PREREQUISITES

Test oil

return temp. > °C

: 40...48 with thermometer> : 42...50 electronic>

Inlet pressure, bar: 0.30...0.40

Calibrating nozzle-

holder assembly> : 1 688 901 022

Opening

bar : 130...133 pressure>

Test pressure line : 1 680 750 073

: 6.00 Outer diameter x wall thickness> : 2.00 x length> \mathbf{m} : 450

Overflow valve : 1 463 456 303

Test line : 1 684 463 218

(fuel-delivery actuator)

: 1 684 463 221 Test line

(solenoid valve start of injection)

ELECTRICAL TEST

Actuator Connections 4 and 7 Test temperature:

15°...30°C, ohms : 0.4...1.0 50°...70°C, ohms : 0.45...1.1

Connection 4 and

ground, Mohms min.: 1.0

Connection 7 and

ground, Mohms min.: 1.0

Connection 2 and 7

Mohms min. :
Connection 4 and 6 : 1.0

Mohms min.

Control-collar travel sensor Test temperature :

15°...70°C

Connections 2 and 3

: 1.0...3.0 kohms

Connections 1 and 3

: 0.5...2.0 kohms

Connection 1 and

ground, Mohms min.: 1.0

Connection 2 and

ground, Mohms min.: 1.0

Connection 3 and

ground, Mohms min.: 1.0

Temperature sensor, fuel

Connections 5 and 6 Test temperature :

15°...30°C, kohms: 1.2...4.0 50°...70°C, kohms: 0.3...1.2

Connection 5 and

ground, Mohms min.: 1.0

Connection 6 and

ground, Mohms min.: 1.0

Solenoid valve, start of

injection

Connections 1 and 2

Test temperature :

15°...30°C, ohms : 14.3...17.3

50°...70°C, ohms : 15.5...21.0

Setting values of injection pump Check values in brackets Supply pump pressure:

Speed 1/min: 1000 Checkbk. volt. mV: 3000 Setting value, bar: 6.0...6.6 Solenoid valve Start of injection, volts: 0

Timing device travel:

Speed 1/min: 1000 Checkbk. volt. mV: 3000 Setting value, mm: 8.5...8.9 Solenoid valve Start of injection, volts: 0

Full-load delivery:

Test specifications of injection pump Check values in brackets

Supply pump pressure variations:

1st speed 1/min: 300 Checkbk. volt. mV: 3000 Supply pump bar : 4.8...5.4 pressure > bar : (4.6...5.6) Solenoid valve Start of injection, volts: 0 2nd speed 1/min : 1000 Checkbk. volt. mV: 3000 Supply pump pressure > bar : bar : (5.8...6.8) Solenoid valve Start of

injection, volts: 0

Timing device variations:

1st speed 1/min: 100 Checkbk. volt. mV: 4000 Timing device mm: 1.9...4.7 travel mm : (1.6...5.0)Solenoid valve Start of injection, volts: 0
2nd speed 1/min: 1000 Checkbk. volt. mV : 2300 Timing device mm: 0.0...0.6 travel mm : (0.0...0.6)Solenoid valve Start of injection, volts: 12 3rd speed 1/min: 1000 Checkbk. volt. mV: 3000 Timing device travel mm: mm : (8.0...9.4)Solenoid valve Start of injection, volts: 0
4th speed 1/min: 2000 Checkbk. volt. mV: 3000 Timing device travel mm: 12.0...12.6 mm : (11.8...12.8)Solenoid valve Start of injection, volts: 0

Overflow at overflow valve

Fuel delivery variations:

1st speed 1/min : 2000 Checkbk. volt. mV : 3000 Solenoid valve Start of injection, volts : 0 Fuel delivery cm3/: 50.5...52.5 1000str: (49.0...54.0) Dispersion cm3/: 2.51000str: (2.5) 2nd speed 1/min : 1500 Checkbk. volt. mV : 2750 Solenoid valve Start of injection, volts : 0 Fuel delivery cm3/: 100060: (35.7...39.7) Dispersion :\Em3 1000str: (2.5) 3rd speed 1/min : 1500 Checkbk. volt. mV : 2000 Solenoid valve Start of injection, volts : 0 Fuel delivery cm3/: 8.9...10.9 1000str: (7.4...12.4) 4th speed 1/min: 500 Checkbk. volt. mV: 3000 Solenoid valve Start of injection, volts : 0 Fuel delivery cm3/: 36.2...38.2 1000str: (34.7...42.7)

Idle delivery:

1/min : 375 Speed Checkbk. volt. mV: 2500 Fuel delivery cm3/: > 1000str: (6.1...14.1) Solenoid valve Start of injection, volts : 12 Dispersion cm3/: 1000str: (2.5) Starting fuel delivery: Speed 1/min : 100 Checkbk. volt. mV: 4000 Fuel delivery min.: cm3/1000str: 45.0 Solenoid valve Start of injection, volts : 12 Stop test:

Speed 1/min: 2075 Checkbk. volt. mV: 3000 ELAB, volts: 0 Fuel delivery cm3/: max. 1000str: 4.0

Shutoff solenoid:

Cut-in voltage
min.> volts : 10.0
Rated voltage,
volts: 12.0

BOSCH INJECTION PUMP TEST SPECIFICATIONS

Observe notes in remark column

: CIT 2.5 A Test sheet

Date of manufacture :

: 10.12.1991 Edition Replaces : 05.07.1989 Test oil : ISO 4113

Injection pump : VE4/9E2075 R 220

Type No. : 0 460 494 998

Customer Ident. No. :

Customer-specific details

Customer : Citroen

: M 25-671 Engine

KW : 78 Output 1/min : 4150 Speed

TEST BENCH PREREQUISITES

Test oil

return temp. > °C

with thermometer> : 40...48 electronic> : 42...50

Inlet pressure, bar: 0.30...0.40

Calibrating nozzle-holder assembly> : 1 688 901 022

Opening

bar : 130...133 pressure>

Test pressure line : 1 680 750 073

Outer diameter : 6.00 x wall thickness> : 2.00 : 450 x length> Dim.

Overflow valve : 1 463 456 303

Test line : 1 684 463 218

(fuel-delivery actuator)

: 1 684 463 221 Test line

(solenoid valve start of injection)

Port closing

: 0.5 Prestroke mm (from BDC): +-0.02

ELECTRICAL TEST

Actuator Connections 4 and 7 Test temperature:

15°...30°C, ohms : 0.4...1.0 50°...70°C, ohms : 0.45...1.1

Connection 4 and

ground, Mohms min.: 1.0 Connection 7 and

ground, Mohms min.: 1.0

Connection 2 and 7

Mohms min. Connection 4 and 6

Mohms min.

Control-collar travel sensor

Test temperature : 15°...70°C

Connections 2 and 3

kohms : 1.0...3.0

Connections 1 and 3

kohms : 0.5...2.0

Connection 1 and

ground, Mohms min.: 1.0

Connection 2 and

ground, Mohms min.: 1.0 Connection 3 and

ground, Mohms min.: 1.0

Temperature sensor, fuel

Connections 5 and 6

Test temperature :

15°...30°C, kohms : 1.2...4.0 50°...70°C, kohms: 0.3...1.2

Connection 5 and

ground, Mohms min.: 1.0

Connection 6 and

ground, Mohms min.: 1.0

Solenoid valve, start of

injection

Connections 1 and 2

Test temperature : 15°...30°C, ohms : 14.3...17.3

50°...70°C. ohms : 15.5...21.0

Setting values of injection pump Check values in brackets Supply pump pressure: 1/min : 1000 Checkbk. volt. mV: 3000 Setting value, bar: 6.0...6.6 Solenoid valve Start of injection, volts: 0 Timing device travel: 1/min : 1000 Checkbk. volt. mV: 3000 Setting value, mm: 8.6...9.0 Solenoid valve Start of injection, volts: 0 Full-load delivery: 1/min : 1500 Speed Checkbk. volt. mV: 2750 Fuel delivery cm3/: 1000str: 37.3...38.3 Solenoid valve Start of injection, volts: 0 Dispersion cm3/: 2.5 1000str: Test specifications of injection pump Check values in brackets Supply pump pressure variations: $1/\min : 300$ 1st speed Checkbk. volt. mV: 3000 Supply pump bar: 4.8...5.4 pressure > bar : (4.6...5.6) Solenoid valve Start of injection, volts: 0
2nd speed 1/min: 1 2nd speed 1/min : 1000 Checkbk. volt. mV: 3000

Supply pump pressure > bar : bar : (5.8...6.8) Solenoid valve Start of injection, volts: 0

Timing device variations: 1st speed 1/min : 100 Checkbk. volt. mV: 4000 Timing device mm: 2.2...5.0 travel mn: (1.9...5.3)Solenoid valve Start of Checkbk. volt. mV : 2300 Timing device mm: 0.0...0.6 travel mm : (0.0...0.6)Solenoid valve Start of injection, volts: 12
3rd speed 1/min: 10 1/min : 1000 3rd speed Checkbk. volt. mV: 3000 Timing device travel mm : mm : (8.1...9.5)Solenoid valve Start of injection, volts: 0 4th speed 1/min: 2000 Checkbk. volt. mV: 3000 Timing device mm : 12.0...12.6travel mm : (11.8...12.8)Solenoid valve Start of injection, volts : 0 Overflow at overflow valve 1st speed 1/min : 2000 Checkbk. volt. mV : 3000 Solenoid valve Start of injection, volts: 0 Overflow : 84...168 > cm3/10: (84...168)

Fuel delivery variations:

1st speed 1/min : 2000 Checkbk. volt. mV: 3000 Solenoid valve Start of injection, volts : 0 Fuel delivery cm3/: 50.8...52.8 1000str: (49.3...54.3) cm3/: 2.5 Dispersion 1000str: (2.5) > 2nd speed 1/min : 1500 Checkbk. volt. mV: 2750 Solenoid valve Start of injection, volts : 0 Fuel delivery cm3/: 1000str: (37.0...38.6) Dispersion cm3/: 1000str: (2.5) 1/min : 1500 3rd speed Checkbk. volt. mV : 2000 Solenoid valve Start of injection, volts : 0 Fuel delivery cm3/: 10.5...12.5 1000str: (10.0...13.0) 4th speed 1/min: 500 Checkbk. volt. mV: 3000 Solenoid valve Start of injection, volts : 0 Fuel delivery cm3/: 38.0...40.0 1000str: (37.5...40.5)

Idle delivery:

Starting fuel delivery:

Speed 1/min: 100
Checkbk. volt. mV: 4000
Fuel delivery min:

> cm3/1000str: 45.0
Solenoid valve
Start of
injection, volts: 12

Stop test:

FH

Speed 1/min: 2075
Checkbk. volt. mV: 3000
ELAB, volts: 0
Fuel delivery cm3/:
max. 1000str: 5.0

Shutoff solenoid:

Cut-in voltage min.> volts : 10.0 Rated voltage, volts: 12.0

Dimensions for mounting and setting:

Description K mm : KF mm : 5.4...5.7 SVS max. mm :

mm

BOSCH INJECTION PUMP TEST SPECIFICATIONS

Observe notes in remark column

Test sheet : BMW 2.4 G

Date of manufacture :

Edition : 10.12.1991
Replaces : 05.07.1989
Test oil : ISO 4113

Injection pump : VE6/10E2400 R 260

Type No. : 0 460 406 998

Customer Ident. No. :

Customer-specific details Customer : BMW

Engine : M 21 D 24 WA

Output KW : 85 Speed 1/min : 4800

TEST BENCH PREREQUISITES

Test oil

return temp. > °C

with thermometer> : 40...48 electronic> : 42...50

Inlet pressure, bar: 0.30...0.40

Calibrating nozzle-

holder assembly> : 1 688 901 022

Opening

pressure> bar : 130...133

Test pressure line : 1 680 750 073

Outer diameter : 6.00 x wall thickness> : 2.00 x length> mm : 450

Overflow valve : 1 463 456 303

Test line : 1 684 463 219

(fuel-delivery actuator)

Test line : 1 684 463 220

(solenoid valve start of injection)

Port closing

Prestroke mm : 0.5 > (from BDC): +-0.02

ELECTRICAL TEST

Actuator

Connections 4 and 7
Test temperature:

15°...30°C, ohms : 0.4...1.0 50°...70°C, ohms : 0.45...1.1

Connection 4 and

ground, Mohms min.: 1.0

Connection 7 and

ground, Mohms min.: 1.0

Connection 2 and 7

Mohms min. : 1.0

Connection 4 and 6

Mohms min. : 1.0

Control-collar travel sensor

Test temperature : 15°...70°C

Connections 2 and 3

kohms : 1.0...3.0

Connections 1 and 3

kohms : 0.5...2.0

Connection 1 and

ground, Mohms min.: 1.0

Connection 2 and

ground, Mohms min.: 1.0

Connection 3 and

ground, Mohms min.: 1.0

Temperature sensor, fuel

Connections 5 and 6

Test temperature :

15°...30°C, kohms: 1.2...4.0 50°...70°C, kohms: 0.3...1.2

Connection 5 and

ground, Mohms min.: 1.0

Connection 6 and

ground, Mohms min.: 1.0

Solenoid valve, start of

injection

Connections 1 and 2

Test temperature :

15°...30°C, ohms : 14.3...17.3

50°...70°C, ohms : 15.5...21.0

Starting stop mV:

max. mv : 4120...4650

Shutoff stop mV: 650...850

Setting values of injection pump Check values in brackets Supply pump pressure: 1/min : 1500 Speed Checkbk. volt. mV: 3520
Setting value, bar: 6.4...7.0
Solenoid valve Start of injection. volts: 0 Timing device travel: 1/min : 1500 Checkbk. volt. mV r 3520 Setting value, mm: 7.0...7.4 Solenoid valve Start of injection, volts: 0 Full-load delivery: 1/min : 1500 Speed Checkbk. volt. mV : 2600 Fuel delivery cm3/: 1000str: 24.0...25.0 Solenoid valve Start of volts: 0 injection, cm3/: 2.0Dispersion 1000str: Test specifications of injection pump Check values in brackets Supply pump pressure variations: 1st speed 1/min : 400 Checkbk. volt. mV : 3680 Supply pump pressure > bar: 4.9...5.5 bar : (4.7...5.7) Solenoid valve Start of injection, volts: 0 1/min : 1500 2nd speed Checkbk. volt. mV: 3520 Supply pump bar : pressure > bar : (6.2...7.2) Solenoid value Start of injection, volts: 0 3rd speed 1/min : 2400 Checkbk. volt. mV: 2970 Supply pump bar: 8.0...8.8 pressure > bar : (7.9...8.9) Solenoid valve

Timing device variations: 1st speed 1/min: 150 Checkbk. volt. mV: 3680 Timing device travel mm: 1.6...4.4 mm : (1.3...4.7)Solenoid valve Start of injection, volts: 0 2nd speed 1/min: 400 Checkbk. volt. mV: 3680 Timing device mm: 4.5...5.9 travel mm : (4.2...6.2)Solenoid valve Start of injection, volts: 0
3rd speed 1/min: 1 3rd speed 1/min : 1500 Checkbk. volt. mV: 3520 Timing device travel mm : mm : (6.5...7.9)Solenoid valve Start of injection, volts: 0 4th speed 1/min: 1500 Checkbk. volt. mV: 3520 Timing device mm : 0.0...0.2travel mm : (0.0...0.2)Solenoid valve Start of injection, volts : 12
5th speed 1/min : 2400 Checkbk. volt. mV: 2970 Timing device mm: 8.7...9.3 travel mm : (8.5...9.5)Solenoid valve Start of injection, volts: 0 Overflow at overflow valve 1st speed 1/min: 500 Checkbk. volt. mV : 3100 Solenoid valve Start of injection, volts: 0 : 55...70 Overflow cm3/10: (50...75) 2nd speed 1/min : 2400 Checkbk. volt. mV: 2970 Solenoid valve Start of injection, volts: 0 Overflow : 82...112

cm3/10: (77...117)

Start of

injection, volts: 0

_
.6 3.1)
3.1)
.6
1.3)
_ ,
6.5)
0.3)
.3
9.8)
9.8)
9
9
9 .2)
.2)
.2) .5
.2) .5
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.2) .5
.2) .5
.2) .5 7.0)
.2) .5 7.0)
.2) .5 7.0)

Starting fuel delivery: Speed 1/min : 100 Checkbk. volt. mV : 3680 Fuel delivery min.: > cm3/1000str: 24.0 Solenoid valve Start of injection, volts : 12 Stop test: 1/min : 2400 Speed Checkbk. volt. mV : 2970 ELAB, volts: 0 Fuel delivery cm3/: max. 1000str: 5.0 Shutoff solenoid: Cut-in voltage min.> volts : 10.0 Rated voltage, volts: 12.0 Dimensions for mounting and setting: Description mm KF 5.9...6.2 mm SVS max. mm FHmm

BOSCH INJECTION PUMP TEST SPECIFICATIONS

Observe notes in remark column

: BMW 2.4 G 1 Test sheet

Date of manufacture :

Edition : 10.12.1991 Replaces : 05.07.1989 Test oil : ISO 4113

: VE6/10E2400 R 260-1 Injection pump

: 0 460 406 997 Type No.

Customer Ident. No. :

Customer-specific details Customer

: M 21 D 24 WA Engine

Output KW: 85 1/min : 4800 Speed

TEST BENCH PREREQUISITES

Test oil

return temp. > °C

with thermometer> : 40...48 electronic> : 42...50

Inlet pressure, bar: 0.30...0.40

Calibrating nozzle-

holder assembly> : 1 688 901 022

Opening

bar : 130...133 pressure>

Test pressure line : 1 680 750 073

Outer diameter : 6.00 x wall thickness> : 2.00 : 450 x length> mm

Overflow valve : 1 463 456 303

: 1 684 463 217 Test line

(fuel-delivery actuator)

: 1 684 463 221 Test line

(solenoid valve start of injection)

Port closing

mm : 0.5 Prestroke (from BDC): +~0.02

ELECTRICAL TEST

Actuator Connections 4 and 7 Test temperature:

15°...30°C, ohms : 0.4...1.0 50°...70°C, ohms : 0.45...1.1

Connection 4 and

ground, Mohms min.: 1.0

Connection 7 and

ground, Mohms min.: 1.0 Connection 2 and 7

Mohms min.

Connection 4 and 6

Mohms min. : 1.0

Control-collar travel sensor

Test temperature : 15°...70°C

Connections 2 and 3

: 1.0...3.0 kohms

Connections 1 and 3

kohms : 0.5...2.0

Connection 1 and

ground, Mohms min.: 1.0

Connection 2 and

ground, Mohms min.: 1.0

Connection 3 and

ground, Mohms min.: 1.0

Temperature sensor, fuel

Connections 5 and 6 Test temperature :

15°...30°C, kohms: 1.2...4.0 50°...70°C, kohms: 0.3...1.2

Connection 5 and

ground, Mohms min.: 1.0

Connection 6 and

ground, Mohms min.: 1.0

Solenoid valve, start of

injection

Connections 1 and 2

Test temperature :

15°...30°C, ohms : 14.3...17.3 50°...70°C, ohms : 15.5...21.0

Starting stop mV : 4120...4650

Shutoff stop mV : 650...850

Setting values of injection pump Check values in brackets Supply pump pressure: Speed 1/min : 1500 Checkbk. volt. mV: 3520 Setting value, bar: 6.4...7.0 Solenoid valve Start of injection, volts: 0 Timing device travel: 1/min : 1500 Checkbk. volt. mV: 3520 Setting value, mm: 7.0...7.4 Solenoid valve Start of injection, volts: 0 Full-load delivery: 1/min : 1500 Checkbk. volt. mV: 2600 Fuel delivery cm3/: 1000str: 25,6...26,0 Solenoid valve Start of injection, volts: 0 cm3/: 2.0 Dispersion 1000str: Test specifications of injection pump Check values in brackets Supply pump pressure variations: 1st speed 1/min : 400 Checkbk. volt. mV: 3680 Supply pump bar: 4.9...5.5 pressure > bar: (4.7...5.7) Solenoid valve Start of injection, volts: 0 2nd speed 1/min: 1500 Checkbk. volt. mV: 3520 Supply pump pressure > bar : bar : (6.2...7.2)Solenoid valve Start of injection, volts: 0 3rd speed 1/min: 2400 Checkbk. volt. mV: 2970 Supply pump bar: 8.0...8.8 pressure > bar: (7.9...8.9)

Timing device variations: 1st speed 1/min: 150 Checkbk. volt. mV: 3680 Timing device travel mm: mm : (1.3...4.7)Solenoid valve Start of injection, volts : 0
2nd speed 1/min : 400 Checkbk. volt. mV: 3680 Timing device travel mm : 4.5...5.9mm = (4.2...6.2)Solenoid valve Start of injection, volts: 0 3rd speed 1/min: 1500 Checkbk. volt. mV: 3520 Timing device travel mm : mm : (6.5...7.9)Solenoid valve Start of injection, volts: 0 4th speed 1/min: 1500 Checkbk. volt. mV: 3520 Timing device mm: 0.0...0.2 travel mm : (0.0...0.2)Solenoid valve Start of injection, volts: 12 5th speed 1/min: 2400 Checkbk. volt. mV: 2970 Timing device travel mm: 8.7...9.3 mm: (8.5...9.5) Solenoid valve Start of injection, volts: 0 Overflow at overflow valve 1st speed 1/min : 500 Checkbk. volt. mV: 3100 Solenoid valve Start of injection, volts: 0 Overflow : 55...70 cm3/10: (50...75) 1/min : 2400 2nd speed Checkbk. volt. mV: 2970 Solenoid valve Start of injection, volts: 0 : 82...112

> cm3/10: (77...117)

Overflow

Solenoid valve

injection, volts: 0

Start of

Fuel deli	ive	ry	vari	at	cions:
1st speed					2400
Checkbk. Solenoid				:	2970
Start of		_			
injection	1,	vol	ts	:	0
Fuel deli	ve	ry	cm3/	:	40.842.8
> Dispersion		100	0str cm3/		(39.344.3)
> >		100	Ostr		2,5 (2,5)
2nd speed					1500
Checkbk.	vo	lt.	mV	:	1,500
Solenoid	va	lve	:		3000
Start of					
injection	1,	Aol	ts	:	0
Fuel deli	.ve	ry 100	oms, Ostr	:	38,240,2
Dispersion			cm3/		(36.941,5) 2,0
>			Ostr		(2,0)
3rd speed					1500
Checkbk.	vo	lt.	mV	:	
Solenoid	va	lve	:		2600
Start of		_			•
injection					0
Fuel deli	.ve	ry 100	Ostr	:	(23,827,8)
Dispersion			cm3/		(2),027,07
> > Dispersion			Ostr		(2,0)
4th speed					1000
Checkbk.	vo	lt.	mV	:	***
Solenoid	va.	lve	:		3140
Start of		1			0
injection Fuel deli	ا, س	Ln Not	.ts .cm3/	:	•
>		100	Ostr	:	(37,842,8)
Dispersion			cm3/		2,0
>		100	Ostr	:	(2,0)
5th speed	1	1/	min	:	1000
Checkbk.	VO.	lt.	mV	:	2400
Solenoid	VA.	TAG			2400
Start of injection	, ,	vol	+ e	:	0
Fuel deli					11,012.6
>			Ostr		(9,514,1)
Dispersion	n		cm3/	:	2,0
>			0str		(2,0)
6th speed					625
Checkbk. Solenoid				:	3000
Start of	va.	rve			J 000
injection	١. ١	vol	ts	:	0
Fuel deli	ve	ry	cm3/	:	
>		100	0str	:	(25.229.2)
7th speed					500
Checkbk.	vo.	Lt.	mV	:	7100
Solenoid Start of	va.	тл6			3100
Start of injection		ו מע	ts	•	0
					26,928,9
>		100	0str	:	(25,430,4)
Dispersio	n		cm3/	:`	2,0
>	•	100	Ostr	:	(2.0)

1000str: (2,0)

```
Idle delivery:
Speed
             1/min : 400
Checkbk. volt. mV: 2770
Fuel delivery cm3/:
           1000str: (7,7...12.7)
Solenoid valve
Start of
injection, volts : 12
Dispersion cm3/:
           1000str: (2.0)
Starting fuel delivery:
            1/min : 100
Speed
Checkbk. volt. mV : 3680
Fuel delivery min.:
       cm3/1000str: 26.0
Solenoid valve
Start of
injection, volts : 12
Stop test:
            1/min : 2400
Speed
Checkbk. volt. mV : 2970
ELAB,
           volts: 0
Fuel delivery cm3/:
           1000str: 3.0
max.
Shutoff solenoid:
Cut-in voltage
min.> volts
                   : 10.0
Rated voltage,
             volts: 12.0
Dimensions for mounting and
setting:
Description
K
             mm
KF
                  : 5.9...6.2
             \mathbf{m}\mathbf{n}
SVS max.
             mm
FH
             mm
```

Testoil-ISO 4113

Test Specifications Fuel Injection Pumps 1 and Governors

WPP 001/4 MAC 11.0 k

1. Edition

PES 6 P 110 A 720 RS3024

RQV 300/600-1050 PA342KR PA344KR

supersedes

PES 6 P 110 A720/3RS3036

ROV 300/600-1050 PA365KR PA366KR

company

 $PLE-Ma\beta = 0.740"-0.820"$

ETA 676 B engine (306 PS)

All test specifications are valid for Bosch Fuel Injection Pump Test Benches and Testers

** Values only apply to test nozzleand-holder assembly 0 681 343 009

A. Fuel Injection Pump Settings

and fuel-injection test tubing 1 680 750 015

mm (from BDC) Port closing at prestroke

Rotational speed rev/min	Control rod travel mm	Fuel delivery cm ³ /190 strokes 3	Difference cm ³ / 100 strokes 4	Control rod travel mm 2	Fuel delivery cm ³ /100 strokes 3	Spring pre-tensioning (torque-control valve) mm 6
1000	14,3+0,1	22,1-22,3	0,4			
300	5,0-5,2	1,2-2,3	0,4			

Adjust the fuel delivery from each outlet according to the values in

B. Governor Settings

Upper rated	speed		Intermediate	e rated sp	eed	Lower rated	speed		Silding sleeve travel	
Degree of deflection		Control rod travel	/ deflection		Control rod travel	Degree of deflection of control		Control rod travel		①
of control lever	rod travel	rev/min (2)	of control lever	rev/min	mm (4)	lever	rev/min	mm 3	rev/min	mm
1	2	3	4	5	6	7	8	9	10	11
ca.68	1070 1150 1200 1280	15,5-18,0 6,0-11,0 0 - 6,8 0		-	•	ca.19	400 580	9,8-11,3 7,5- 8,5 2,5- 5,0 2,5- 5,0 0,8- 2,0	300 400 900 1070	0,6-1,8 -600 = 3,1-3,6 5,8-6,2 8,2

Torque control travel a =

C. Settings for Fuel Injection Pump with Fitted Governor

	d stop np 40°C (104°F) 2	imitation intermediate speed	high idle s		idle switchii	ng point	travei	Control od travel
rev/min	cm ³ /1000 strokes	rev/min 3	rev/min	cm ³ /1000 strokes 5	6	cm ³ /1000 strokes	rev/min	mm 9
LDA 1000	1,7 bar 221,0-223,0	1090-1100*	LDA 800 500 LDA 600 300	1,7 bar 223,5-226,5 235,5-238,5 0 bar 143,0-146,0 114 -122 (PLE)		ca.11,5mmRW ca. 5 mmRW rsion max. 4	1050 900 700 600 500	14,4 14,4 14,7 15,2 14,9

Checking values in brackets

* 1 mm less control rod travel than col 2

3.83

Test Specifications Fuel Injection Pumps ① and Governors

WPP 001/4 VOL 12,0 c 1
1. Edition

_En

PE 6 P 120 A 320 RS 3032 Z RQV 250-1100 PA 355/2R Testing with T nozzles and fuel lines 8x2x1000 according

supersedes

7.79 Volvo

company:

TD 120 C

** In the case of greater dispersion alter the delivery-valve spring pre-tension accordingly.

All test specifications are valid for Bosch Fuel Injection Pump Test Benches and Testers

A. Fuel Injection Pump Settings

Port closing at pres	troke	(2-55-2-75)	mm (from BDC)		Cyl. 6	
Rotational speed	Control rod travel	Fuel delivery	Difference cm ³ /	Control rod travel	Fuel delivery	Spring pre-tensioning (torque-control valve)
rev/min 1	mm 2	cm ³ /100 strokes 3	100 strokes	mm 2	cm³/100 strokes 3	mm 6
700	13,0-13,1	24,5-24,9	0,5(0,9)			25±0,1 **
250	5,2-5,5	0,9-1,3	0,5(0,8)			(max. 2,2-2,9)
700	-	C, 4-5	0,7(1,1)			
	·					

Adjust the fuel delivery from each outlet according to the values in

B. Governor Settings

Upper rated	speed		Intermediate	e rated sp	eed	Lower rated	speed		Slidnos	sleeve travel
Degree of deflection of control	rev/min Control rod travel	Control rod travel	of control		Control rad Degree deflection of control			Control rod travel		0
lever 1	mm 2	rev/min (2)	lever 4	rev/min	mm (4)	lever 7	rev/min 8	mm (3) 9	rev/min 10	11
ca.50	1100 1350	15,2-17,8 0 - 1,0				ca.12	100 250	mind.7,0 5,3-5,5		1,4-2,0 3,7-4,0
ca.47	12,0	1140-1150 1235-1265					310-	370 = 2,0	1170	8,3
						②				

Torque control travel a =

mm

C. Settings for Fuel Injection Pump with Fitted Governor

Full-load de Control-roo Test oil ten		Rotational-speed 20 limitation intermediate speed			Starting idle switchia	\mathbf{O}	Torque- travel	Control rod
rev/min	cm³/1000 strokes .	rev/min 4a	rev/min	cm ³ /1000 strokes	rev/mis	cmil/1000 strokes	rev/min	travel mm
1	2	3	4	5	6	7	8	9
LDA 700	0,9 bar 245,0-249,0 (242,0-252,0)	1140 - 1150*	LDA 700	0 bar 148,0-152,0 (145.0-155,0)	250			

Checking values in brackets

* 1 mm less control rod travel than cci. 2

D. Adjustment Test for Manifold Pressure Compensator

VOL 12,0 c 1 -2-

Test at n =

500

rev/min decreasing pressure ~ in bar gauge pressure

Pump/governor	Setting	Measurement	diminution Control rod travel- difference
	Gauge pressure = bar	Gauge pressure = bar	mm (1) .
3032 Z with 355/2R	0,66	0,14	12,1 - 12,2
			9,3 - 9,7

Notes.

(1) when n =

rev/min and gauge pressure = bar (= maximum full-load control rod travel)

Test Specifications Fuel Injection Pumps 1 and Governors

WPP 001/4 3. Edition

PES 6 MW 100/320 RS 1016 Komb.-Nr. 0 403 446 117

ROV 300-1400 MW 25

supersedes

2.81

Port closing at prestroke

 $1-5-3-6-2-4 = 0-60-120-180-240-300 \pm 0,50^{\circ} (0,75)$

company:

RVI MIDR 06.02-12

engine

125 kW (170 PS)

Port closing mark 10,5° after port closing cylinder 1

All test specifications are valid for Boach Fuel Injection Pump Test Benches and Testers

A. Fuel injection Pump Settings

3,00-3,10

mm (from BDC)

RW 9,0-12,0 mm

Rotations/speed rev/min	Control rod travel	Fuel delivery cm ³ /100 strokes 3	Difference cm³/ 100 strokes 4	Control rod travel mm 2	Fuel delivery cm ³ /100 strokes 3	Spring pre-tensioning (torque-control valve) mm 6
1400	11,1+0,1	9,0 - 9,2	0,35(0,6)			
300 900 500	6,3-6,5	0,95 - 1,35	0,35(0,55 0,5 (0,7) 0,35(0,6)			

Adjust the fuel delivery from each outlet according to the values in [

B. Governor Settings

Upper rated :	speed		Intermediat	rated sp	au d	Lower rated	speed		Stiding	iseve travel
Degree of deflection of control lever	rev/min Control rod travel mm 2	Control rod travel mm (28)	Degree of deflection of control lever	rev/min 5	Control rod travel mm 4	Degree of deflection of control lever 7	rev/min 8	Control rod travel mm 3	rev/min	mm 11
ca.68	1400 1700	15,2-17,8 0 - 1,0				ca.13	100 300 490-	min.8,0 6,3-6,5 550 =2,0		
ca.64		1440-1450 1540-1570				3				

Torque control travel a =

C. Settings for Fuel injection Pump with Fitted Governor

Full-load de Control-roe Test oil ten		Rotational-speed 2b imitation intermediate speed	Fuel delic high idle s	very characteristics 58	Starting idle awitchin		Torque- travel	control 5
rev/min	cm³/1000 strokes .	rev/min 4	rev/min cm³/1000 strokes		rev/min	cmi%1000 strokes	rev/min	travei mm
1	2	3	4	5	6	7	8	9
LDA 1400	0,67 bar 90,0-92,0 (88,0-94,0)	1440-1450*	LDA 900 LDA 500	0,67 bar 86,5-90,5 (84,5-92,5) 0 bar 61,0-63,0 (58,0-66,0)	100 300	min.100,0 9,5-13,5 (7,0-16,0)		

Checking values in brackets

* 1 mm less control rod travel than col. 2

Test Specifications Fuel Injection Pumps 1 and Governors

WPP 001/4 MAC 11,0 \times 6

1. Edition

US-PES 6 P 110 A 720 RS 5006 US-RQV 300/600-1050 PA621-7K supersedes Komb.-Nr. 9 400 231 171

 $PLE-Ma\beta = 0.740" - 0.820"$

company:

Note VDT-I-MAC 002!

Values only apply to test nozzle-and-holder assembly 0 681 343 009 and fuel-injection test tubing 1 680 750 015

MACK EME 6 - 250 250 PS

All test specifications are valid for Bosch Fuel Injection Pump Test Benches and Testers

A. Fuel Injection Pump Settings

Port closing at prestroke

Rotational speed rev/min 1	Control rod travel mm	(3,15-3,35) Fuel delivery cm ³ /100 strokes 3	Difference cm ³ / 100 strokes 4	Control rod travel mm	Fuel delivery cm ³ /100 strokes 3	Spring pre-tensioning (torque-control valve) mm 6
1050	11,7+0,1	17,7-17,9	0,4			
300	5,2-5,4	2,4 - 3,0	0,4			

Adjust the fuel delivery from each outlet according to the values in [

B. Governor Settings

	Upper rated a	peed rev/min	Control rod	Intermediate Degree of	rated sp	eed Control rod	Lower rated	speed	Control rod	Sliding sleeve travel		
	deflection of control	Control rod travel	travel	deflection of control lever	rev/min	travel	deflection of control	rev/min	travel 3	rev/min	mm (1)	
l	1	2	3	4	5	6	7	8	9	10	11	
	max.	1120	15,2-17,8	-		-	ca.20	250	9,8-11,3	-	~	
	ca.61		1090-1100 1165-1195 0 - 1,0				<u>3a</u>	300 400 690-	7,9-8,1 3,8-5,2 750 =2,0			

Torque control travel a =

C. Settings for Fuel Injection Pump with Fitted Governor

Full-load delivery Control-rod stop Test oil temp. 40°C (104°F) 2		Rotational-speed 2b limitation intermediate speed	Fuel deliv	very characteristics (5a)	Starting idle switchir		Torque- travel	control 5
rev/min	cm³/1000 strokes	rev/min 4a	rev/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	rev/min	travel mm
	2	3	4	5	6	7	8	9
1050	176,5-178,5	1090-1100*	850	184,0-188,0	100	120,0-180,0	1050 1000	
			630	202,0-206,0 PLE			850 750	11,9+0,1
			800	121,0-129,0		·	630 500	12,8+0,1

Checking values in brackets

* 1 mm less control rod travel than col. 2

WPP 001/4 SCA 11.0 r 2

2. Edition

PE 6 P 110 A 720 RS 3040 ROV 250-1050 PA 379

11.79

engine.

Scania DS 11

In the case of greater dispersion alter the delivery-valve spring pre-tension accordingly.

All test specifications are valid for Bosch Fuel Injection Pump Test Benches and Testers

A. Fuel Injection Pump Settings

mm (from BDC)

Cy1. 6

Port closing at pres	stroke	(3,25-3,45)	mm (from BDC)							
Rotational speed rev/min	Control rod travel mm 2	Fuel delivery cm ³ /100 strokes 3	Difference cm ³ / 100 strokes 4	Control rod travel mm 2	Fuel delivery cm ³ /100 strokes 3	Spring pre-tensioning (torque-control valve) mm 6				
1050	13,4-13,5	16,6 - 16,8	0,4(0,8)			3,3 ± **				
225	3,7-3,9	0 1,1	0,2(0,4)			$(\max. 3, 0-3, 5)$				
600/500	-	C, 4-5	0,6(1,0)							

Adjust the fuel delivery from each outlet according to the values in [

B. Governor Settings

deflection	rev/min Control	Control rod (1a)	Degree of Control rod travel			Lower rated speed Degree of Control rod deflection travel			Sliding sleeve travel	
of control lever	rod travel mm 2	mm rev/min 28 3	of control lever	rev/min 5	mm 4	of control lever 7	rev/min 8	mm 3	rev/min 10	mm 11
ca. 68	1050 1350	15,2-17,8 0 - 1,0	-	-	-	ca.8	100 225	min.5,3 3,7-3,9	225 360	1,3 2,5-2,9
ca. 64		1090-1100 1190-1220				3 a	290-	350=2,0	1050	8,2

Torque control travel a =

C. Settings for Fuel Injection Pump with Fitted Governor

Full-load d Control-ro Test oil ter		limitation intermediate speed	high idle s	rery characteristics 5e poed 5b	Starting Idle awitchi	. 0	Torque- travel	Control fod
rev/min	cm³/1000 strokes	rev/min 49	rev/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	rev/min	travel mm
1	2	3	4	5	6	7	8	9
LDA 1050	0,7 bar 166,0-168,0 (163,0-171,0)	1090-1100*	LDA 600 LDA 500	0,7 bar 169,0-173,0 (166,0-176,0) 0 bar 126,0-130,0 (123,0-133,0)	255	220,0-270,0 9-13**		

Checking values in brackets

*1 mm less control rod travel than col. 2

-2-

D. Adjustment Test for Manifold Pressure Compensator

Test at n =

500

rev/min decreasing pressure - in bar gauge pressure

SCA 11,0 r 2

Pump/governor	Setting	Measurement	diminution Control rod travel- difference
	Gauge pressure = bar	Gauge pressure = bar	mm (1) .
3040 with 379	0,41		12,9 - 13,0
		0,25	11,8 - 12,0

Notes.

(1) when n =

rev/min and gauge pressure = bar (= maximum full-load control rod travel)

Festoil-ISO 4113

WPP 001/4 ALO 11,0 b

PES 6 P 110 A 320 RS 211

RQV 300...1100 PA 173 KR

0 402 046 056

1 - 5 - 3 - 6 - 2 - 4

companyAllis-Chalmers 11000

Values only apply to test nozzle-and-holder assembly 0 681 343 009 and fuel-injection test tubing 9 681 230 704

All test specifications are valid for Bosch Fuel Injection Pump Test Benches and Testers

A. Fuel Injection Pump Settings

Port closing at prestroke 2,8 + 0,1

mm (from BDC)

Rotational speed rev/min 1	Control rod travel mm 2	Fuel delivery cm ³ /100 strokes 3	Difference cm ³ / 100 strokes 4	Control rod travel mm 2	Fuel delivery cm ³ /100 strokes 3	Spring pre-tensioning (torque-control valve) mm 6
1000	12	16,0 - 16,8				
600	9 12	8,5 - 9,7 15,2 - 16,7				
200	15 9	21,5 - 23,3 6,8 - 8,1				

Adjust the fuel delivery from each outlet according to the values in

B. Governor Settings

Upper rated	speed			Intermediate	rated sp	beed	Lower rated	speed		Sliding sleeve travel	
Degree of deflection of control lever	rev/min Control rod travel mm	Control rod travel mm rev/min 3	(a) (2a)	Degree of deflection of control lever		Control rod travel mm 4	Degree of deflection of control lever 7	rev/min 8	Control rod travel mm 3	rev/min 10	mm 11
66°	1100 1150 1200 1280 1360	14,8-17 10,7-14 6,0-11 0- 5 0	,7 ,4				10°	250 300 400 570	6,2-8,0 4,2-6,5 0,2-5,6	350 600 1000	1,8-3,0 3,9-4,4 7,0-7,4

Torque control travel a =

C. Settings for Fuel Injection Pump with Fitted Governor

Full-load d Control-roo Test oil ten		Rotational-speed 2b limitation intermediate speed	Fuel delin high idle s		Starting Idle switchin	<u> </u>	Torque- travel	Control rod
rev/min	cm³/1000 strokes	rev/min 48	rev/min	cm ³ /1000 strokes	rev/min	cm ³ /1000 strokes	rev/min	
1	2	3	4	5	6	7	8	9

Checking values in brackets

* 1 mm less control rod travel than col. 2

C. Settings for Fuel Injection	Pump with Fitted Governor
--------------------------------	---------------------------

Contro	ad delivery pi-rod stop d temp. 40°C (104°F) (2	Breakaway		Full-load Control- Test oil 1	delivery 2 nod stop emp. 40°C (104°F)	idie	fuel delivery 6	Low id	Control rod
rev/mi		rev/min		rev/min	cm³/1000 strokes	rev/min		rev/mir	travel
1	2	3		1	2	6	7	8	9
	4 000 754		·		•	•			
	. 4 320 754	4040	_		** * ***				
1025	91,0- 93,0	1040	7	' 00	99,0-103,0	100	90,0-130,0	300	19,0-25,0
AC-Nr	. 4 320 793								
1000	122,0-124,0	1020	7	00	126,0-130,0	100	90,0-130,0	300	19,0-25,0
AC-Nr	. 4 320 815								
900	100,0-106,0	910-920	7	00	101,0-107,0	100	90,0-130,0	300	19.0-25.0
			6	00	111,0-117,0				,.
AC-Nr.	. 4 320 816								
900	97,0-103,0	910-920	8	00	98,0-104,0	100	90,0-130,0	300	19,0-25,0
AC-Nr.	. 4 320 817								
1100	139,0-143,0	1120	8	00	149,0-154,0	100	90,0-130,0	375	9,0-19,0
	,.			00	153,0-161,0	100	30,0-130,0	3/3	3,0-13,0
AC-Nr.	. 4 320 829								
1100	139,0-143,0	1120	8	00	149,0-154,0	100	90,0-130,0	375	9.0-19.0
			61	00	153,0-161,0				.,,.
AC-Nr.	4 320 933								
900	102,0-110,0	1040	80	00	107,0-116,0	100	90,0-130,0	300	25,0
AC-Nr.	4 320 939								
900	98,5 + 3	1040	70	00	107,5 + 4	100	90,0-130,0	200	25.0
	_	10.0	•		107,5 + 4	100	30,0-130,0	300	25,0
	4 320 940								
900	78,0- 86,0	1040	70	00	100,0-109,0	100	90,0-130,0	300	25,0
AC-Nr.	4 320 941								
1025	91,0- 93,0	1040	70	00	99,0-103,0	100	90,0-130,0	300 1	9,0-25,0
AC-Nr.	4 320 942								
1000	122,0-124,0	1020	70	10	126,0-130,0	100	90,0-130,0	300 1	9.0-25.0
AC-Nr.	4 320 980								
900	108,0-116,0	1120	80	n	-	100	90 0-120 0	37E	0 0 40 0
		. 120				100	90,0-130,0	3/3	9,0-19,0
	4 320 981								
900	111,0-119,0	1020	80	0	112,0-118,0	100	90,0-130,0	300	25,0
AC-Nr.	4 321 016								
750	95,0-101,0	1020	75	0	95,0-101,0	100	90,0-130,0	300	25,0
AC-Nr.	4 321 064								
1000	112,0	1030	80	0	112,5	100	90,0-130,0 3	300	25,0
						. 🕶	,,-		2090

Full-load of Control-ro		Breakaway (Full-load Control-re Test oil to		Starting h	uel delivery 6	LOW 1d1	e speed 5 Control rod
centumo Lesconire	cm³/1000 strokes		revimin	cm³/1000 strokes	1	cm ³ /1000 strokes	rev/min	travel mm
1	2	3		2	6	7	8	9
		ı	•	1	, ,		•	
C-Nr.	4 359 816							
900	100,0-106,0	910-920	700 600	101,0-107,0 111,0-117,0	100	90,0-130,0	300	19,0-25,
C-Nr.	4 359 826							
900	97,0-103,0	910-920	800	98,0-104,0	100	90,0-130,0	300	19,0-25
C-Nr.	4 359 828							
100	139,0-143,0	1120	800	149,0-154,0	100	90,0-130,0	375	9,0-19
			600	153,0-161,0		•		
C-Nr.	4 359 830							
1025	91,0- 93,0	1040	700	99,0-103,0	100	90,0-130,0	300	19,0-25
AC-Nr.	4 359 832							
1000	122,0-124,0	1020	700	126,0-130,0	100	90,0-130,0	300	19,0-25
C-N-	4 392 693							
050	205,0-215,0	1065-80	900	167,0-177,0	100	130,0-170,0	300	19.0-25
		1003 00	300	107,00 177,00		,.		
-	4 392 695	000					200	10 0-25
900	149,0-155,0	920	•	-	•	-	300	19,0-25
C-Nr.	4 392 697							
750	185,0-191,0	770	600	222,0-228,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 699							•
800	210,0-218,0	820	600	223,0-229,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 701							
900	203,0-209,0	920	700	209,0-215,0	100	130,0-170,0	300	19,0-25
	4 392 703							
1050	220,0-230,0	1060-70	900	200,0-210,0	100	130,0-170,0	300	19.0-25
030	250,0-230,0	1000 70	700	205,0-215,0		,,		,
C-Nr.	4 392 707							
050	243,0-253,0	1060-80	900	222,0-232,0	100	130,0-170,0	300	19,0-25
			700	235,0-245,0				
C-Nr.	4 392 709							
000	217,0-223,0	1020	800	197,0-203,0		130,0-170,0	300	19,0-25
			600	219,0-225,0	l			
C-Nr.	4 392 711							
600	231,0-237,0	620	-	-	-	-	300	19,0-25

C.	Settings	for Fuel In	jection Pump	with Fitted	Governor

Control		Breakaway	Contro	Full-load delivery Control-rod stop		fuel delivery 6	Low id	e speed 3
revimin	emp. 40°C (104°F) (2 cm²/1000 strokes	rev/min	rev/mi	temp. 40°C (104°F) cm³/1000 strokes	•	ng point cm³/1000 strokes	reiv/men	Control ro
1	2	3	1	2	6	7	8	9
	1	1	1		1	1	}	
AC-Nr.	4 392 715							
1050	187,0-193,0	1070	900	174,0-180,		130,0-170,0	300	19,0-25
			700	175,0-181,	U			
	4 392 717							
1050	224,0-230,0	1070	800	185,0-191,0	0 100	130,0-170,0	300	19,0-25
	4 392 719							
1050	200,0-206,0	1070	900 700	190,0-196,0 214,0-220,0		130,0-170,0	300	19,0-25
0 C - N	4 392 721							
4C-Nr. 1050	4 392 721 242,0-248,0	1070	900	220.0-226.0	0 100	130,0-170,0	300	19.0-25
. 0 0 0	LTE 30" LTO 30	1070	700	230,0-236,0		10050-17050		1290-23
AC-Nr.	4 392 723							
750	244,0-250,0	770	700	253,0-259,0	100	130,0-170,0	300	19,0-25
AC-Nr.	4 392 725							
800	239,0-245,0	820	600	248,0-254,0	100	130,0-170,0	300	19,0-25
AC-Nr.	4 392 727							
900	232,0-238,0	920	700	253,0-259,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 729							
1000	212,0-218,0	1020	800	230,0-236,0	100	130,0-170,0	300	19,0-25
lC-Nr.	4 392 731							
900	288,0-294,0	920	700	287,0-293,0	100	130,0-170,0	300	27,0-33
IC-Nr.	4 392 735							
050	239,0-245,0	1070	900	233,0-239,0		130,0-170,0	300	19,0-25
			700	273,0-279,0)	•		
	4 392 737							
000	215,0-221,0	1020	800 600	197,0-203,0 220,0-226,0		130,0-170,0	300	19,0-25
C - N	A 202 720							
050	4 392 739 207,0-213,0	1050	900	195,0-201,0	100	130,0-170,0	300	10 N-2F
	FA130-F1930	1030	700	225,0-231,0		19050-17050	300	179U~C3
IC-Nr.	4 392 741							
050	213,0-219,0	1070	900	202,0-208,0		130,0-170,0	-	-
		•	700	230,0-236,0)			
	4 392 743							
050	220,0-226,0	1070	900 700	210,0-216,0 243,0-249,0		130,0-170,0	300	9,0-25

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Testoil-ISO 4113

C.	Settings	for Fuel I	njection	Pump with	Fitted	Governor

Full-load delivery Control-rod stop Test oil temp. 40°C (104°F) (2)		Control-rod stoo			Starting Idio switchin	fuel delivery (6) ig point	Low idle speed 5		
rev/min	cm³/1000 strokes	rev/min	0	rev/min	cm ³ /1000 strokes		cm³/1000 strokes	reiv/mın	
1	2	3		<u> </u>	2	6	7	8	0
C-Nr.	4 392 747								
050	227,0-233,0	1070		000	208,0-214,0 247,0-253,0	100	130,0-170,0	300	19,0-25,
C-Nr.	4 392 749 .								
050	230,0-234,0	1070	-	•	•	100	130,0-170,0	300	19,0-25,
C-Nr. 050	4 392 750 230,0-234,0	1070	-	,	-	100	130,0-170,0	300	19,0-25,
C-Nr.	4 392 768								
800	123,0-133,0	820	6	00	132,0-142,0	100	130,0-170,0	300	19,0-25,
C-Nr.	4 392 775/776				•				
875	162,0-164,0	890	6	00	140,0-144,0	100	130,0-170,0	300	19,0-25,
C-Nr.	4 392 777								
950	205,0-207,0	970	7	00	195,0-199,0	100	130,0-170,0	300	19,0-25,
C-Nr.	4 392 778								
950	208,0-214,0	990	7	50	196,0-202,0	100	130,0-170,0	300	21,0-27,
C-Nr.	3 392 779								
025	190,0-200,0	1030-40	10 9	00 00	191,0-201,0 178,0-188,0	100	130,0-170,0	300	19,0-25,
C-Nr.	4 392 781							•	
025	228,0-238,0	1050-60		00 00	205,0-215,0 207,0-217,0	100	130,0-170,0	300	19,0-25,
C-Nr.	4 392 953								
940	185,0-195,0	955-65	-		-	100	130,0-170,0	300	19,0-25,
C-Nr.	4 393 095								
050	211,0-221,0	1060-80		00 00	210,0-220,0 238,0-248,0	100	130,0-170,0	300	19,0-25,
C-Nr.	4 393 307								
900	210,0-216,0	920	7	00	212,0-218,0	100	130,0-170,0	300 2	27,0-33,
C-Nr.	4 393 431								
050	208,0-214,0	1070		00 00	230,0-235,0 260,0-266,0	100	130,0-170,0	300 1	19,0-25,
C-Nr.	4 393 821								
050	242,0-248,0	1070		00 00	220,0-226,0 230,0-236,0	100	130,0-170,0	300 1	9,0-25,

Full-load Control	d delivery rod stop temp. 40°C (104°F) (2)	Breakaway (20) Full-foad delivery Control-rod stop intermedate speed Test oil temp. 40'		ad stoo				Control rod	
rev/min	cm ² /1000 strokes			rev/min	cm³/1000 strokes		cm ^{3/1000} strokes	travel	
1	2	3		1	2	6	7	8	9
1		l	ı		1				1
AC-Nr.	. 4 393 823								
1050	187,0-193,0	1070		900 700	174,0-180,0 175,0-181,0	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 393 825								
1050	224,0-230,0	1070	8	300	185,0-191,0	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 393 827								
1050	200,0-206,0	1070		900 700	190,0-196,0 214,0-220,0	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 393 829								
1050	230,0-234,0	1070	-	•	•	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 393 831				•				
1050	213,0-219,0	1070		000 00	202,0-208,0 230,0-236,0	100	130,0-170,0	-	-
AC-Nr.	4 393 833								
1050	264,0	1060-1080	9	00	280,5	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 393 835								
1050	220,0-226,0	1070		00	210,0-216,0 243,0-249,0	100	130,0-170,0	300	19,0,25,0
AC-Nr.	4 393 837								
1050	227,0-233,0	1070		00 00	208,0-214,0 247,0-253,0	100	130,0-170,0	300.	19,0-25,0
AC-Nr.	4 393 890				•				
950	208,0-214,0	990	7	50	196,0-202,0	100	130,0-170,0	300	21,0-27,0
AC-Nr.	4 393 891								•
955	208,0	965-975	8	95	203,0	-			-
NC-Nr.	4 393 961								
900	181,0-187,0	920	70	00	172,0-178,0	100	130,0-170,0	300	19,0-25,0
C-Nr.	4 394 001								•
700	218,0-224,0	720	60	00	240,0-246,0	100	130,0-170,0	300 2	27,0-33,0
C-Nr.	4 394 017								
950	208,0-214,0	990	75	50	196,0-202,0	166	130,6-170,6	300 2	21.0-27.0
C-Nr	4 394 020				-				.,- =,,0
700	249,0-257,0	725	60	00 :	258,0-264,0	100	130,0-170,0	የበበ ተ	0 0-20 0
		+	_ •	'	,- LVT,U			JUU 1	マ,ひてとび,ひ

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Full-toa	ad delivery i-rod stop i temp. 40°C (104°F) (2)		Control	Full-load delivery (2) Control-rod stop Test oil temp. 40°C (104°F)		fuel delivery 6	Low idle speed 5	
revimu	cm³/1000 strokes	rev/min		cm ³ /1000 strokes	rev/min	cm³/1000 strokes	rev/min	travel mm
	2	3		12	6	7	8	19
	. 4 394 062							
800	113,0-119,0	820	600	102,0-108,0	100	130,0-170,0	300	19,0-25,0
AC-Nr 875	. 4 394 064 161,0-165,0	890	600	140,0-144,0	100	130,0-170,0	300	19,0-25,0
AC-Nr	. 4 394 066							
800	125,0-131,0	820	600	134,0-140,0	100	130,0-170-0	300	19,0-25,0
	. 4 394 068							
1025	192,0-198,0	1045	900	180,0-186,0	100	130,0-170,0	300	19,0-25,0
AC-Nr.	. 4 394 070							
1000	200,0-206,0	1020	800 600	180,0-186,0 189,0-195,0	100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 072							
940	185,0-195,0	955-65		~	100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 074							
1025	230,0-236,0	1040	900 700	207,0-213,0 209,0-215,0	100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 076							
1000	227,0-233,0	1020	800	197,0-203,0	100	130,0-170,0	300 1	9.0-25.0
AC-Nr.	4 394 078						•	
1000	235,0-241,0	1020	700	263,0-269,0	100	130,0-170,0	300 1	9.0-25.0
AC-Nr.	4 394 080				, , ,			J,0-2J,0
1000	220,0-226,0	1020	800 600	209,0-215,0 227,0-233,0	100	130,0-170,0	300 1	9,0,25,0
AC-Nr.	4 394 082							
910	190,0	930	-	-	100	130,0-170,0	300 21	5.0
AC-Nr	4 394 084					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	J00 Z.	J,0
900	160,0-166,0	920	700	139,0-145,0	100	130,0-170,0 3	RAA 10	D 0-25 0
AC-Nr	4 394 086					,,.,.	,00 1	9,0-25,0
600	124,0-130,0	620	_	_	100	130,0-170,0 3	200 40	
AC-No	4 394 088	0.20			100	130,0-170,0 3	נו טטט	9,0-25,0
700	127,0-133,0	720	600	124 0 420 0	400	400 0 400 0 -		
		720	600	124,0-130,0	100	130,0-170,0 3	100 19	9,0-25,0
	4 394 090	6.00						
800	139,0-145,0	820	600	124,0-130,0	100	130,0-170,0 3	00 19	,0-25,0

~	Callings	4-m	E	Ininalism	Finance sadel	Eithod	Covomer
والخاج	Germina	101	LTT. CELL	BRACHOIL	Franp with	Litten	COTOLING

Contro	Full-load delivery Control-nud 1989		Breakaway (2) Full-food delivery Control-rod stop Instantociate speed Test oil temp. 40°C (104°		Startin	g fuel delivery 6			
1 .			(a) revin		- 1	n cm³/1000 strokes	Control rod travel rev/min mm		
1	2	rev/min 3		2	6	7	8 9		
							1 1		
AC-Nr	. 4 394 092								
925	157,0-163,0	945	800 600	145,0-151, 134,0-140,		130,0-170,0	300 19,0-25,0		
AC-Nr	. 4 394 094								
1000	180,0-186,0	1020	800 700	154,0-160, 142,0-148,		130,0-170,0	300 19,0-25,0		
AC-Nr.	. 4 394 096								
1050	207,0-213,0	1070	900 800	161,0-175, 147,0-153,		130,0-170,0	300 19,0-25,0		
AC-Nr.	. 4 394 098								
900	187,0-193,0	920	700	162,0-168,	0 100	130,0-170,0	300 27,0-33,0		
AC-Nr.	. 4 394 100								
900	200,0-206,0	920	700	184,0-190,0	100	130,0-170,0	300 27,0-33,0		
AC-Nr.	4 394 102								
900	203,0-209,0	920	700	209,0-215,0	100	130,0-170,0	300 19,0-25,0		
AC-Nr.	4 394 104								
750	185,0-191,0	770	600	222,0-228,0	100	130 0-170 0	200 40 0 25 0		
	•	770	000	222,0-220,0	, 100	130,0-170,0	300 19,0-25,0		
_	4 394 106								
800	210,0-218,0	820	600	223,0-229,0	100	130,0-170,0	300 19,0-25,0		
AC-Nr.	4 394 108								
1050	222,0-228,0	1070	900	202,0-208,0		130,0-170,0	300 19,0-25,0		
		•	700	207,0-213,0)				
AC-Nr.	4 394 110								
1000	240,0-246,0	1020	800	224,0-230,0		130,0-170,0	300 19,0-25,0		
			600	237,0-243,0					
AC-Nr.	4 394 112								
1050	245,0-251,0	1070	900 700	224,0-230,0 237,0-243,0		130,0-170,0	300 19,0-25,0		
AC-Nr.	4 394 114								
1000	217,0-223,0	1020	800	197,0-203,0	100	130.0-170.0	300 19,0-25,0		
	•		600	219,0-225,0			,,0		
AC-Nr.	4 394 116								
900	210,0-216,0	920	700	212,0-218,0	100	130.0-170.0	300 27,0-33,0		
AC-Nr.	į								
1050	269,0-275,0	1070	000	201 0 007 0	4.00	420 0 470 0	200 40 2		
1030	207,0-2/5,0	1070	900 700	281,0-287,0 293,0-299,0	100	130,0-170,0	300 19,0-25,0		

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Full-load delivery Control-rod stop		Breakaway	Control	delivery (2)	idle	fuel delivery 6	Low id	le speed 5
		intermedate spec	Test od 1			g point	Control rod travel	
rev/min 1	cm ³ /1000 strokes	rev/min 3	rev/min	cm³/1000 strokes	rev/min 6	cm³/1000 strokes 7	8	9
		1					1	1
IC-Nr.	4 394 120							
050	234,0-240,0	1070	900 700	246,0-252,0 268,0-274,0		130,0-170,0	300	19,0-25,
C-Nr.	4 394 122			•				
050	262,0-268,0	1070	900 700	279,0-285,0 289,0-295,0	100	130,0-170,0	300	19,0-25,
C-Nr.	4 394 124							
050	241,0-247,0	1070	900 700	265,0-271,0 268,0-274,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 394 126							
900	232,0-238,0	920	700	253,0-259,0	100	130,0-170,0	300	19,0-25
IC-Nr.	4 394 128							
750	244,0-250,0	770	700	253,0-259,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 394 130							
800	239,0-245,0	820	600	248,0-254,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 394 132							
000	212,0-218,0	1020	800	230,0-236,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 394 134							
900	288,0-294,0	920	700	287,0-293,0	100	130,0-170,0	300	27,0-33
C-Nr	4 394 136							
000	255,0-261,0	1020	800	272,0-278,0	100	130,0-170,0	300	19,0-25
	200,0 000,0		600	270,0-276,0				
C-Nr.	4 394 138							
050	239,0-245,0	1070	900	233,0-239,0		130,0-170,0	300	19,0-25
			700	273,0-279,0				
	4 394 140					400 0 470 0		
000	215,0-221,0	1020	800 600	197,0-203,0 220,0-226,0		130,0-170,0	300	19,0-25
C_N-	A 20A 1A2							
900	4 394 142 222,0-228,0	920	700	254,0-260,0	100	130,0-170,0	300	19.0-25
		J20	. 30			,. ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	J. J. W	,
	4 394 144	47070	750	272 A_270 A	100	120 0_170 0	200	27 0 22
050	257,0-263,0	1070	750	272,0-278,0	100	130,0-170,0	300	∠/ , U-33
C-Nr.	4 394 148							
050	295,0-303,0	1075	900	309,0-315,0	100	130,0-170,0	300	25,0

C. Se	C. Settings for Fuel Injection Pump with Fitted Governor									
Full-load of Control-ro Test oil ter		Breakaway intermediate spe	(B)	Full-load of Control-ro Test oil te		Starting Idle awitchin	tuel delivery 6 g point	Low id	Control rod	
rev/min	cm ³ /1000 strokes	rev/min	•	rev/min	cm³/1000 strokes	rev/min 6	cm ³ /1000 strokes	rev/min 8	travel mm	
AC-Nr.	4 394 150									
1050	268,0-274,0	1070		900 700	274,0-280,0 280,0-286,0	100	130,0-170,0	300	19,0-25,	
AC-Nr.	4 394 152									
1050	262,0-268,0	1070		900 700	267,0-273,0 267,0-273,0	100	130,0-170,0	300	19,0-25,	
AC-Nr.	4 394 154									
1050	279,0-285,0	1070		900 700	283,0-289,0 293,0-299,0	100	130,0-170,0	300	19,0-25,	
AC-Nr.	4 394 156									
1050	296,0-302,0	1070		900 700	301,0-307,0 309,0-315,0	100	130,0-170,0	300	19,0-25,	
AC-Nr.	4 394 158 4 394 157									
1050	253,0-256,0	1070		900 700	252,0-258,0 269,0-275,0	100	130,0-170,0	300	19,0-25,	
AC-Nr.	4 394 160									
1050	208,0-214,0	1070		900 700	230,0-235,0 260,0-266,0	100	130,0-170,0	300	19,0-25,	
AC-Nr.	4 394 162									
900	181,0-187,0	920		700	172,0-178,0	100	130,0-170,0	300	19,0-25,	
AC-Nr.	4 394 164							•		
925	176,0-182,0	945		800 700	162,0-168,0 177,0-183,0	100	130,0-170,0	300	19,0-25,0	
AC-Nr.	4 394 166									
900	173,0-179,0	920		800	160,0-166,0	100	130,0-170,0	300	19,0-25,0	
AC-Nr.	4 394 168									
925	237,0-243,0	945		800 700	251,0-257,0 269,0-275,0	100	130,0-170,0	300	27,0-33,0	
ic-Nr.	4 394 170									
750	218,0-224,0	720		600	240,0-246,0	100	130,0-170,0	300	27,0-33,0	
lc-Nr.	4 394 176									
050	213,0-219,0	1070		900 700	212,0-218,0 240,0-246,0	100	130,0-170,0	300	19,0-25,0	

C. Settings for Fuel Injection Pump with Fitted Governor

Full-load de Control-roo Test oil ten	stoo	intermediate speed	high idle (rery characteristics (5e) peed (39)	Starting idle switchir		Low idl	Control rod
rev/min	cm ³ /1000 strokes	rev/min 44	rev/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	rev/min	ww
1	2	3	4	5	8	7	8	9

AC-Nr. 4 394 246

1050 211,0-220,0 237,5-247,0 100 130,0-170,0 300 19,0-25,0 258,5-269,5 1055-1075 975

700 600 255,5-266,0

Tilt stop part position to obtain quantity at 1050 PRM.

		ition to obtain mean curve abou		
AC-Nr.	. 4 394 248			
700 600	246,0 263,0	720	100	130,0-170,0 300 19,0-25,0
AC-Nr.	4 394 250	•		
1050	244,5-254,5	1060-1080	100	130,0-170,0 300 19,0-25,0
AC-Nr.	. 4 394 257			
600	258,0	•	100	130,0-170,0 300 27,0
AC-Nr.	4 394 314			
1050	246,0	1070	100	130,0-170,0 300 19,0-25,0
900 700	240,0 267,0			
	4 394 331			
1050 900	241,0-247,0 265,0-271,0	1070	100	130,0-170,0 300 19,0-25,0
700	268,0-274,0			
AC-Nr.	4 394 332			
1050	268,0-274,0	1070	100	130,0-170,0 300 19,0-25,0
900 700	274,0-280,0 280,0-286,0			
AC-Nr	4 394 347 .			
1050	269,0-275,0	1070	100	120 0.170 0.200 10 0.25 0
900	281,0-287,0	1070	100	130,0-170,0 300 19,0-25,0
700	293,0-299,0			
AC-Nr.	4 394 348			
1050	234,0-240,0	1070	100	130,0-170,0 300 19,0-25,0
900 700	246,0-252,0 268,0-274,0			
AC-Nr.	4 394 349			
1050	208,0-214,0	1070	100	130,0-170,0 300 19,0-25,0
900 700	230,0-236,0 260,0-266,0			
	4 394 350			
1050 900	262,0-268,0 279,0-285,0	1070	100	130,0-170,0 300 19,0-25,0
700	289,0-295,0			

C.	Settings	for Fuel In	jection Pu	ımp with I	Fitted (Governor
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Full-load	delivery	Breakaway	-(2)	Super reals	very characteristics (50	Charian	fuel delivery (6)	Low id	ile speed 5
Control-		intermediate spe	· ② •d	high idle (pred (3)	Idle	ng point		Control ro
rev/min	cm³/1000 strokes	rev/min	(4)	rev/mia	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	rev/m	traval nj mm
1	2	3		4	5	6	7	8	9
						1			
-	4 394 351								
900 900	253,0-256,0 252,0-258,0	1070				100	130,0-170,0	300	19,0-25
700	269,0-275,0								
C No	4 204 250								
	4 394 352	4070							
050 900	262,0-268,0 267,0-273,0	1070				100	130,0-170,0	300	19,0-25
700	267,0-273,0								
C-Nr	4 394 353								
050	279,0-285,0	1070				4.00	420 0 470 0	200	40 0 00
900	283,0-289,0	1070				100	130,0-170,0	300	19,0-25
700	293,0-299,0								
C-Nr.	4 394 354								
050	296,0-302,0	1070				100	130,0-170,0	300	19.0-25
900	301,0-307,0						,	000	15,0 25,
700	309,0-315,0								
C-Nr.	4 394 356								
050	246,0	1070				100	130,0-170,0	300	19.0-25.
900	240,0								,,
700	267,0								
C-Nr.	4 394 386								
500	167,0-175,0	620				100	130,0-170,0	300	25.0
C-Nr.	4 394 390								· ·
	259,0-267,0	925				100	120 0 170 0	200	40 0 00
	238,0-246,0	323				100	130,0-170,0	300	19,0-29,
-Nr	4 394 428								
	188,0-196,0	1025				400	400 0 470 0	000	
	180,0-187,0	1025				100	130,0-170,0	300	25,0
Man	A 204 A72			•					
	4 394 473								
	189,0-197,0 185,0-193,0	875				100	130,0-170,0	325	30,0
	4 394 501								
	175,0 158,0	925				100	130,0-170,0	300	19,0-25,
	4 394 521								•
	239,0-247,0	1025				100	130,0-170,0	300 2	25,0
00	229,0-235,0								
-Nr.	4 394 527								
	161,0	925				100	130,0-170,0	300 1	9.0-25-
00	151,0							'	.,,

Full-load (Control-ro	od stop		Fuel deli high ide	very characteristics (5e)	Starting Idle switchin		Low ic	lle speed 5
Lea/Why Least Off re	mp. 40°C (104°F) (2) cm³/1000 strokes	rev/min		cm ³ /1000 strokes		cm ³ /1000 strokes	rév/mi	Control ro travel n mm
1	2	3	4	5	6	7	8	9
AC-Nr.	4 394 541	•	•	•	•	•	•	•
1050	202,0-210,5	1060-1080		•	100	130,0-170,0	ነ 300	10 0-2
		1000 1000			.00	100,0 170,0	, 500	13,0-2
	4 394 550	4040 4000			400	400 0 400		
1000	230,5-239,5	1010-1030	`		100	130,0-170,0	300	19,0-2
_	4 394 561							
900 900	258,0 256,0	1060-1080			100	130,0-170,0	300	19,0-2
ic-Nr.	4 394 564							
050	244,0	1070			100	130,0-170,0	300	19,0-25
900	234,0							
IC-Nr.	4 394 569							
000	203,0-211,5	1010-1030		•	100	130,0-170,0	300	19,0-25
C-Nr.	4 394 590							
050	260,5-271,0	1060-1080			100	130,0-170,0	300	19,0-25
Seginn De "02	ing of movemend.	nt: 0,40 - 0,	45 bar	at 750 PRM a	nd 0,	90 bar pressu	ıre,	gap shou
C-Nr.	4 394 593	·						
050	251,5-261,5	1060-1080			100	130,0-170,0	300	19,0-25
C-Nr.	4 394 703							
050	260,5-271,0	1060-1080	900	267,0-278,0	100	130,0-170,0	300	19,0-25
btain	top part posit mean curve al essure, gap sl	bove. Beginni	ing of	267,0-278,0 tity at 1050 movement: 0,4	PRM. 1	Adjust stop p ,45 bar at 79	art 50 PR	position M and O
	4 394 705							
	4 394 706 258,0	1060-1080			400	420 0 470		
	256,0	1000-1000	•		100	130,0-170	300	19,0-25
C-Nr.	4 394 707							
	244,0	1070	•		100	130,0-170,0	300	10 0-25
300	234,0					,,.,	000	13,0-23
C-Nr.	4 394 718							
	198,0-213,0	965-975			100	130,0-170,0	300	21,0-27
300	196,0-210,0					•		·
-Nr.	4 394 719		•					
	166,0-168,0 142,5-146,5	915			100	130,0-170,0	300	21,0-27
-Nr.	4 394 733							
	255,0-261,0 272,0-278,0	1020			100	130,0-170,0	300	19,0-25,
	272,0-278,0 270,0-276,0							

-13-

C.	Settings for	Fuel Injection	Pump with	Fitted Governor
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C. Settings for Fuel Injection Pump with Fitted Governor									
Control	d delivery -rod stop	Breakaway 20	Fuel deli high idle :	very characteristics (50 lipsed (50)	idle	_	Low idl	e speed 5	
	temp. 40°C (104°F) (2)	intermediate speed rev/min 49	rev/min	cm³/1000 strokes	COA)umu Restcus	ng point cm ³ /1000 strokes	reiv/min	Control rod travel	
revimin	2	3	4	5	6	7	8	9	
AC~Nr	· 4 394 740/741		1						
1020 915	213,0-226,0 208,0-218,0	1030-1040							
AC-Nr	. 4 394 744								
1050 900	250,0 256,0	1060-1080			100	130,0-170,0	300	19,0-25,	
AC-Nr.	. 4 394 745								
950 750	208,0-214,0 196,0-202,0	990			100	130,0-170,0	300 2	21,0-27,0	
AC-Nr.	. 4 394 746								
875 600	161,0-165,0 140,0-144,0	890			100	130,0-170,0	300	19,0-25,	
AC-Nr.	. 4 394 771			•					
800 600	113,0-119,0 102,0-108,0	820			100	130,0-170,0	300 1	9,0-25,0	
AC-Nr.	. 4 394 773								
800 600	125,0-131,0 134,0-140,0	820			100	130,0-170,0	300 1	9,0-25,0	
AC-Nr.	4 394 775								
1025 900	192,0-198,0 180,0-186,0	1045			100	130,0-170,0	300 1	9,0-25,0	
AC-Nr.	4 394 777								
1000 800 600	200,0-206,0 180,0-186,0 189,0-195,0	1020			100	130,0-170,0	300 1	9,0-25,0	
AC-Nr.	4 394 779								
940	185,0-195,0	955-65			100	130,0-170,0	300 1	9,0-25,0	
AC-Nr.	4 394 781							-	
1025 900 700	230,0-236,0 207,0-213,0 209,0-215,0	1040	•		100	130,0-170,0	300 1	9,0-25,0	
AC-Nr.	4 394 783								
1000 800	227,0-233,0 197,0-203,0	1020			100	130,0-170,0	300 1	9,0-25,0	
AC-Nr.	4 394 785					•			
1000 700	235,0-241,0 263,0-269,0	1020			100	130,0-170,0	300 19	9,0-25,0	

Table of Lemins APPC (10047) Company Com	Full-load o		Breakaway	②	Fuel deli	very characteristics (5e	Sterling	fuel delivery 6	Low id	le speed 5
C-Nr. 4 394 789 100 130,0-170,0 300 19,0-25 100 130,0-170,0 30			intermediate spe		high ide i	(S)		g point		Control rod
C-Nr. 4 394 787 800 220,0-226,0 800 227,0-233,0 800 29,0-215,0 800 29,0-215,0 800 29,0-233,0 800 29,0-233,0 800 29,0-233,0 800 29,0-233,0 800 29,0-233,0 800 29,0-25,0 800 27,0-233,0 800 19,0-25 800,0-25,0 800 124,0-130,0	rev/min	cm ³ /1000 strokes	rev/min	(4)	rev/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	rev/mun	
000 220,0-226,0 800 209,0-215,0 800 227,0-233,0 C-Nr. 4 394 789 910 190,0 930 100 130,0-170,0 300 19,0-25 910 190,0 930 100 130,0-170,0 300 25,0 C-Nr. 4 394 791 900 16,0-166,0 920 100 130,0-170,0 300 19,0-25 700 139,0-145,0 C-Nr. 4 394 795 700 127,0-133,0 720 100 130,0-170,0 300 19,0-25 700 127,0-133,0 720 100 130,0-170,0 300 19,0-25 800 124,0-130,0 820 100 130,0-170,0 300 19,0-25 800 124,0-130,0 820 100 130,0-170,0 300 19,0-25 800 144,0-130,0 945 100 130,0-170,0 300 19,0-25 800 144,0-140,0 C-Nr. 4 394 801 100 130,0-170,0 300 19,0-25 800 144,0-140,0 C-Nr. 4 394 801 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 120,0-	1	2	3		4	5	6	7	8	9
000 220,0-226,0 800 209,0-215,0 800 227,0-233,0 C-Nr. 4 394 789 910 190,0 930 100 130,0-170,0 300 19,0-25 910 190,0 930 100 130,0-170,0 300 25,0 C-Nr. 4 394 791 900 16,0-166,0 920 100 130,0-170,0 300 19,0-25 700 139,0-145,0 C-Nr. 4 394 795 700 127,0-133,0 720 100 130,0-170,0 300 19,0-25 700 127,0-133,0 720 100 130,0-170,0 300 19,0-25 800 124,0-130,0 820 100 130,0-170,0 300 19,0-25 800 124,0-130,0 820 100 130,0-170,0 300 19,0-25 800 144,0-130,0 945 100 130,0-170,0 300 19,0-25 800 144,0-140,0 C-Nr. 4 394 801 100 130,0-170,0 300 19,0-25 800 144,0-140,0 C-Nr. 4 394 801 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 100 120,0-186,0 120,0-	A No.	A 20A 707	•		•	•	•	,	-	·
880			4000				100	120 0-170 0	200	10 0-25
600 227,0-233,0 C-Nr. 4 394 789 910 190,0 930 100 130,0-170,0 300 25,0 C-Nr. 4 394 791 900 160,0-166,0 920 100 130,0-170,0 300 19,0-25 C-Nr. 4 394 793 600 124,0-130,0 C-Nr. 4 394 795 600 124,0-130,0 C-Nr. 4 394 795 600 124,0-130,0 C-Nr. 4 394 797 800 139,0-145,0 820 100 130,0-170,0 300 19,0-25 600 124,0-130,0 C-Nr. 4 394 797 800 139,0-145,0 820 100 130,0-170,0 300 19,0-25 600 124,0-130,0 C-Nr. 4 394 799 925 157,0-163,0 820 100 130,0-170,0 300 19,0-25 800 145,0-151,0 600 134,0-140,0 C-Nr. 4 394 801 000 180,0-160,0 700 142,0-148,0 C-Nr. 4 394 803 050 207,0-213,0 100 130,0-170,0 300 19,0-25 800 147,0-153,0 C-Nr. 4 394 803 050 207,0-213,0 100 130,0-170,0 300 19,0-25 001 161,0-175,0 800 147,0-153,0 C-Nr. 4 394 805 900 187,0-193,0 920 100 130,0-170,0 300 27,0-33 700 162,0-168,0 C-Nr. 4 394 807 900 203,0-209,0 920 100 130,0-170,0 300 19,0-25			1020				100	130,0-170,0	300	13,0-23,
910 190,0 930 100 130,0-170,0 300 25,0 C-Nr. 4 394 791 900 160,0-166,0 920 100 130,0-170,0 300 19,0-25 700 139,0-145,0 620 100 130,0-170,0 300 19,0-25 C-Nr. 4 394 795 700 127,0-133,0 720 100 130,0-170,0 300 19,0-25 600 124,0-130,0 820 100 130,0-170,0 300 19,0-25 600 124,0-130,0 820 100 130,0-170,0 300 19,0-25 600 124,0-130,0 820 100 130,0-170,0 300 19,0-25 600 124,0-130,0 820 100 130,0-170,0 300 19,0-25 600 124,0-130,0 945 100 130,0-170,0 300 19,0-25 600 124,0-130,0 100 130,0-170,0 300 19,0-25 600 124,0-160,0 100 130,0-170,0 300 19,0-25 600 140,0-160,0 100 130,0-170,0 300 19,0-25 600 140,0-150,0 100 130,0-170,0 300 19,0-25 600 147,0-153,0 1070 100 130,0-170,0 300 19,0-25 600 147,0-153,0 1070 100 130,0-170,0 300 27,0-33 600 187,0-193,0 920 100 130,0-170,0 300 27,0-33 600 187,0-193,0 920 100 130,0-170,0 300 27,0-33 600 184,0-190,0 920 100 130,0-170,0 300 27,0-33 600 184,0-190,0 920 100 130,0-170,0 300 19,0-25	600									
910 190,0 930 100 130,0-170,0 300 25,0 C-Nr. 4 394 791 900 160,0-166,0 920 100 130,0-170,0 300 19,0-25 700 139,0-145,0 620 100 130,0-170,0 300 19,0-25 C-Nr. 4 394 795 700 127,0-133,0 720 100 130,0-170,0 300 19,0-25 600 124,0-130,0 820 100 130,0-170,0 300 19,0-25 600 124,0-130,0 820 100 130,0-170,0 300 19,0-25 600 124,0-130,0 820 100 130,0-170,0 300 19,0-25 600 124,0-130,0 820 100 130,0-170,0 300 19,0-25 600 124,0-130,0 945 100 130,0-170,0 300 19,0-25 600 124,0-130,0 100 130,0-170,0 300 19,0-25 600 124,0-160,0 100 130,0-170,0 300 19,0-25 600 140,0-160,0 100 130,0-170,0 300 19,0-25 600 140,0-150,0 100 130,0-170,0 300 19,0-25 600 147,0-153,0 1070 100 130,0-170,0 300 19,0-25 600 147,0-153,0 1070 100 130,0-170,0 300 27,0-33 600 187,0-193,0 920 100 130,0-170,0 300 27,0-33 600 187,0-193,0 920 100 130,0-170,0 300 27,0-33 600 184,0-190,0 920 100 130,0-170,0 300 27,0-33 600 184,0-190,0 920 100 130,0-170,0 300 19,0-25	Nei Alia	4 204 700								
C-Nr. 4 394 791 900 160,0-166,0 920 100 130,0-170,0 300 19,0-25 700 139,0-145,0 920 100 130,0-170,0 300 19,0-25 C-Nr. 4 394 793 600 124,0-130,0 620 100 130,0-170,0 300 19,0-25 700 127,0-133,0 720 100 130,0-170,0 300 19,0-25 600 124,0-130,0 720 100 130,0-170,0 300 19,0-25 600 124,0-130,0 820 100 130,0-170,0 300 19,0-25 600 124,0-130,0 820 100 130,0-170,0 300 19,0-25 600 124,0-130,0 945 100 130,0-170,0 300 19,0-25 600 134,0-140,0 70 100 130,0-170,0 300 19,0-25 600 144,0-160,0 70 142,0-148,0 70 164,0-168,0 1020 100 130,0-170,0 300 19,0-25 600 161,0-175,0 800 167,0-153,0 1070 100 130,0-170,0 300 19,0-25 600 162,0-168,0 920 100 130,0-170,0 300 27,0-33 600 200,0-206,0 920 100 130,0-170,0 300 27,0-33 700 184,0-190,0 920 100 130,0-170,0 300 27,0-33 700 184,0-190,0 920 100 130,0-170,0 300 19,0-25			020				100	120 0-170 0	300	25.0
900 160,0-166,0 920 100 130,0-170,0 300 19,0-25 700 139,0-145,0 720 100 130,0-170,0 300 19,0-25 600 124,0-130,0 620 100 130,0-170,0 300 19,0-25 700 127,0-133,0 720 100 130,0-170,0 300 19,0-25 600 124,0-130,0 720 100 130,0-170,0 300 19,0-25 600 124,0-130,0 720 100 130,0-170,0 300 19,0-25 600 124,0-130,0 720 100 130,0-170,0 300 19,0-25 600 124,0-130,0 720 100 130,0-170,0 300 19,0-25 600 124,0-130,0 945 100 130,0-170,0 300 19,0-25 600 145,0-151,0 945 100 130,0-170,0 300 19,0-25 600 144,0-140,0 720 100 130,0-170,0 300 19,0-25 600 144,0-140,0 720 100 130,0-170,0 300 19,0-25 600 144,0-160,0 1020 100 130,0-170,0 300 19,0-25 600 144,0-160,0 1020 100 130,0-170,0 300 19,0-25 600 161,0-175,0 1070 100 130,0-170,0 300 19,0-25 600 147,0-153,0 720 100 130,0-170,0 300 27,0-33 600 162,0-168,0 920 100 130,0-170,0 300 27,0-33 600 200,0-206,0 920 100 130,0-170,0 300 19,0-25 600 184,0-190,0 920 100 130,0-170,0 300 19,0-25 600 184,0-190,0 920 100 130,0-170,0 300 19,0-25	910	190,0	930				100	130,0-170,0	300	25,0
700 139,0-145,0 C-Nr. 4 394 793 600 124,0-130,0 620 100 130,0-170,0 300 19,0-25 700 127,0-133,0 720 100 130,0-170,0 300 19,0-25 700 127,0-133,0 720 100 130,0-170,0 300 19,0-25 600 124,0-130,0 820 100 130,0-170,0 300 19,0-25 600 124,0-130,0 945 100 130,0-170,0 300 19,0-25 800 145,0-163,0 945 100 130,0-170,0 300 19,0-25 800 145,0-160,0 1020 100 130,0-170,0 300 19,0-25 800 154,0-160,0 1020 100 130,0-170,0 300 19,0-25 C-Nr. 4 394 801 100 130,0-170,0 300 19,0-25 800 154,0-160,0 1020 100 130,0-170,0 300 19,0-25 C-Nr. 4 394 803 1070 1070 100 130,0-170,0 300 19,0-25 800 147,0-153,0 1070 100 130,0-170,0 300 19,0-25 C-Nr. 4 394 805 900 161,0-175,0 800 147,0-153,0 920 100 130,0-170,0 300 27,0-33 700 162,0-168,0 920 100 130,0-170,0 300 27,0-33 C-Nr. 4 394 807 900 200,0-206,0 920 100 130,0-170,0 300 27,0-33	C-Nr.	4 394 791								
C-Nr. 4 394 793 600 124,0-130,0 620 100 130,0-170,0 300 19,0-25 C-Nr. 4 394 795 700 127,0-133,0 720 600 124,0-130,0 C-Nr. 4 394 797 800 139,0-145,0 820 600 124,0-130,0 C-Nr. 4 394 799 925 157,0-163,0 945 800 145,0-151,0 600 134,0-140,0 C-Nr. 4 394 801 000 180,0-186,0 1020 800 154,0-160,0 700 142,0-148,0 C-Nr. 4 394 803 005 C-Nr. 4 394 803 005 C-Nr. 4 394 805 900 147,0-153,0 920 100 130,0-170,0 300 19,0-25 100 130,0-170,0 300 19,0-25 100 130,0-170,0 300 19,0-25 100 130,0-170,0 300 19,0-25 100 130,0-170,0 300 19,0-25 100 130,0-170,0 300 19,0-25 100 161,0-175,0 100 130,0-170,0 300 19,0-25 100 162,0-168,0 100 130,0-170,0 300 19,0-25 100 130,0-170,0 300 19,0-25 100 130,0-170,0 300 19,0-25 100 130,0-170,0 300 27,0-33 100 184,0-190,0 100 130,0-170,0 300 27,0-33 100 184,0-190,0 100 130,0-170,0 300 19,0-25	900	160,0-166,0	920				100	130,0-170,0	300	19,0-25,
600 124,0-130,0 620 100 130,0-170,0 300 19,0-25 C-Nr. 4 394 795 700 127,0-133,0 720 100 130,0-170,0 300 19,0-25 600 124,0-130,0 820 100 130,0-170,0 300 19,0-25 600 124,0-130,0 820 100 130,0-170,0 300 19,0-25 800 124,0-130,0 945 100 130,0-170,0 300 19,0-25 800 145,0-151,0 600 134,0-140,0 100 130,0-170,0 300 19,0-25 800 154,0-160,0 1020 100 130,0-170,0 300 19,0-25 800 154,0-160,0 1020 100 130,0-170,0 300 19,0-25 800 154,0-160,0 1020 100 130,0-170,0 300 19,0-25 800 161,0-175,0 800 147,0-153,0 1070 100 130,0-170,0 300 19,0-25 900 167,0-193,0 920 100 130,0-170,0 300 27,0-33 700 162,0-168,0 100 130,0-170,0 300 27,0-33 700 164,0-190,0 920 100 130,0-170,0 300 27,0-33 700 184,0-190,0 920 100 130,0-170,0 300 19,0-25	700	139,0-145,0								
600 124,0-130,0 620 100 130,0-170,0 300 19,0-25 C-Nr. 4 394 795 700 127,0-133,0 720 100 130,0-170,0 300 19,0-25 600 124,0-130,0 820 100 130,0-170,0 300 19,0-25 600 124,0-130,0 820 100 130,0-170,0 300 19,0-25 800 124,0-130,0 945 100 130,0-170,0 300 19,0-25 800 145,0-151,0 600 134,0-140,0 100 130,0-170,0 300 19,0-25 800 154,0-160,0 1020 100 130,0-170,0 300 19,0-25 800 154,0-160,0 1020 100 130,0-170,0 300 19,0-25 800 154,0-160,0 1020 100 130,0-170,0 300 19,0-25 800 161,0-175,0 800 147,0-153,0 1070 100 130,0-170,0 300 19,0-25 900 167,0-193,0 920 100 130,0-170,0 300 27,0-33 700 162,0-168,0 100 130,0-170,0 300 27,0-33 700 164,0-190,0 920 100 130,0-170,0 300 27,0-33 700 184,0-190,0 920 100 130,0-170,0 300 19,0-25	AC-Nr.	4 394 793								
C-Nr. 4 394 795 700 127,0-133,0 720 100 130,0-170,0 300 19,0-25 600 124,0-130,0 C-Nr. 4 394 797 800 139,0-145,0 820 100 130,0-170,0 300 19,0-25 600 124,0-130,0 C-Nr. 4 394 799 925 157,0-163,0 945 100 130,0-170,0 300 19,0-25 800 145,0-151,0 600 134,0-140,0 C-Nr. 4 394 801 000 180,0-186,0 1020 100 130,0-170,0 300 19,0-25 800 154,0-160,0 700 142,0-148,0 C-Nr. 4 394 803 000 207,0-213,0 1070 100 130,0-170,0 300 19,0-25 900 161,0-175,0 800 147,0-153,0 C-Nr. 4 394 805 900 187,0-193,0 920 100 130,0-170,0 300 27,0-33 700 162,0-168,0 C-Nr. 4 394 807 900 200,0-206,0 920 100 130,0-170,0 300 27,0-33 700 184,0-190,0 C-Nr. 4 394 809 900 203,0-209,0 920 100 130,0-170,0 300 19,0-25			620				100	130,0-170,0	300	19,0-25,
700 127,0-133,0 720 100 130,0-170,0 300 19,0-25 600 124,0-130,0 707 800 139,0-145,0 820 100 130,0-170,0 300 19,0-25 600 124,0-130,0 820 100 130,0-170,0 300 19,0-25 600 124,0-130,0 945 100 130,0-170,0 300 19,0-25 800 145,0-151,0 600 134,0-140,0 C-Nr. 4 394 801 000 180,0-186,0 1020 100 130,0-170,0 300 19,0-25 800 154,0-160,0 700 142,0-148,0 C-Nr. 4 394 803 050 207,0-213,0 1070 100 130,0-170,0 300 19,0-25 800 147,0-153,0 800 147,0-153,0 C-Nr. 4 394 805 900 187,0-193,0 920 100 130,0-170,0 300 27,0-33 700 162,0-166,0 920 100 130,0-170,0 300 27,0-33 700 162,0-166,0 920 100 130,0-170,0 300 27,0-33 700 184,0-190,0 920 100 130,0-170,0 300 19,0-25 600 203,0-206,0 920 100 130,0-170,0 300 27,0-33 700 184,0-190,0 920 100 130,0-170,0 300 19,0-25 700 184,0-190,0 920 100 130,0-170,0 300 19,0-25 700 184,0-190,0 920 100 130,0-170,0 300 19,0-25 700 184,0-190,0 920 100 130,0-170,0 300 19,0-25 700 184,0-190,0 920 100 130,0-170,0 300 19,0-25		-	•							
600 124,0-130,0 C-Nr. 4 394 797 800 139,0-145,0 820 100 130,0-170,0 300 19,0-25 600 124,0-130,0 C-Nr. 4 394 799 925 157,0-163,0 945 100 130,0-170,0 300 19,0-25 800 134,0-140,0 C-Nr. 4 394 801 000 180,0-186,0 1020 100 130,0-170,0 300 19,0-25 800 154,0-160,0 700 142,0-148,0 C-Nr. 4 394 803 050 207,0-213,0 1070 100 130,0-170,0 300 19,0-25 800 147,0-153,0 1070 100 130,0-170,0 300 19,0-25 C-Nr. 4 394 805 900 187,0-193,0 920 100 130,0-170,0 300 27,0-33 700 162,0-168,0 920 100 130,0-170,0 300 27,0-33 C-Nr. 4 394 807 900 200,0-206,0 920 100 130,0-170,0 300 27,0-33 C-Nr. 4 394 809 900 203,0-209,0 920 100 130,0-170,0 300 19,0-25	_						400	420 0 470 0	200	40 0 25
C-Nr. 4 394 797 800 139,0-145,0 820 C-Nr. 4 394 799 925 157,0-163,0 945 800 145,0-151,0 800 C-Nr. 4 394 801 000 180,0-186,0 1020 ROW 164,0-160,0 1020 C-Nr. 4 394 803 050 207,0-213,0 1070 800 147,0-153,0 1070 C-Nr. 4 394 805 900 161,0-175,0 800 ROW 187,0-193,0 920 C-Nr. 4 394 807 900 200,0-206,0 920 C-Nr. 4 394 809 900 203,0-209,0 920 100 130,0-170,0 300 19,0-25			720				100	130,0-1/0,0	300	19,0-25,
800 139,0-145,0 820 100 130,0-170,0 300 19,0-25 600 124,0-130,0	000	124,0-130,0								
600 124,0-130,0 C-Nr. 4 394 799 925 157,0-163,0 945 800 145,0-151,0 600 134,0-140,0 C-Nr. 4 394 801 000 180,0-186,0 1020 800 154,0-160,0 700 142,0-148,0 C-Nr. 4 394 803 050 207,0-213,0 1070 900 161,0-175,0 800 147,0-153,0 C-Nr. 4 394 805 900 187,0-193,0 920 C-Nr. 4 394 807 900 200,0-206,0 920 100 130,0-170,0 300 19,0-25 100 130,0-170,0 300 27,0-33 100 130,0-170,0 300 27,0-33 100 130,0-170,0 300 27,0-33	C-Nr.	4 394 797								
C-Nr. 4 394 799 925 157,0-163,0	800		820				100	130,0-170,0	300	19,0-25,
925 157,0-163,0 945 100 130,0-170,0 300 19,0-25 800 145,0-151,0 600 134,0-140,0	600	124,0-130,0								
800 145,0-151,0 600 134,0-140,0 C-Nr. 4 394 801 000 180,0-186,0 1020 100 130,0-170,0 300 19,0-25 800 154,0-160,0 700 142,0-148,0 C-Nr. 4 394 803 050 207,0-213,0 1070 100 130,0-170,0 300 19,0-25 900 161,0-175,0 800 147,0-153,0 C-Nr. 4 394 805 900 187,0-193,0 920 100 130,0-170,0 300 27,0-33 700 162,0-168,0 C-Nr. 4 394 807 900 200,0-206,0 920 100 130,0-170,0 300 27,0-33 C-Nr. 4 394 809 900 203,0-209,0 920 100 130,0-170,0 300 19,0-25	NC-Nr.	4 394 799								
C-Nr. 4 394 801 000 180,0-186,0 1020 100 130,0-170,0 300 19,0-25 800 154,0-160,0 700 142,0-148,0 C-Nr. 4 394 803 050 207,0-213,0 1070 100 130,0-170,0 300 19,0-25 900 161,0-175,0 800 147,0-153,0 C-Nr. 4 394 805 900 187,0-193,0 920 100 130,0-170,0 300 27,0-33 C-Nr. 4 394 807 900 200,0-206,0 920 100 130,0-170,0 300 27,0-33 C-Nr. 4 394 809 900 203,0-209,0 920 100 130,0-170,0 300 19,0-25	925		945				100	130,0-170,0	300	19,0-25,
C-Nr. 4 394 801 000 180,0-186,0 1020 100 130,0-170,0 300 19,0-25 800 154,0-160,0 700 142,0-148,0 C-Nr. 4 394 803 050 207,0-213,0 1070 100 130,0-170,0 300 19,0-25 900 161,0-175,0 800 147,0-153,0 C-Nr. 4 394 805 900 187,0-193,0 920 100 130,0-170,0 300 27,0-33 700 162,0-168,0 C-Nr. 4 394 807 900 200,0-206,0 920 100 130,0-170,0 300 27,0-33 C-Nr. 4 394 809 900 203,0-209,0 920 100 130,0-170,0 300 19,0-25	800									
000 180,0-186,0 1020 100 130,0-170,0 300 19,0-25 800 154,0-160,0 700 142,0-148,0										
800 154,0-160,0 700 142,0-148,0 C-Nr. 4 394 803 050 207,0-213,0 1070 100 130,0-170,0 300 19,0-25 900 161,0-175,0 800 147,0-153,0 C-Nr. 4 394 805 900 187,0-193,0 920 100 130,0-170,0 300 27,0-33 700 162,0-168,0 C-Nr. 4 394 807 900 200,0-206,0 920 100 130,0-170,0 300 27,0-33 700 184,0-190,0 C-Nr. 4 394 809 900 203,0-209,0 920 100 130,0-170,0 300 19,0-25	C-Nr.	4 394 801							,	
700 142,0-148,0 C-Nr. 4 394 803 050 207,0-213,0 1070 100 130,0-170,0 300 19,0-25 900 161,0-175,0 100 130,0-170,0 300 19,0-25 900 187,0-193,0 920 100 130,0-170,0 300 27,0-33 700 162,0-168,0 100 130,0-170,0 300 27,0-33 C-Nr. 4 394 807 900 200,0-206,0 920 100 130,0-170,0 300 27,0-33 700 184,0-190,0 920 100 130,0-170,0 300 19,0-25	000		1020				100	130,0-170,0	300	19,0-25,
C-Nr. 4 394 803 050 207,0-213,0 1070 100 130,0-170,0 300 19,0-25 900 161,0-175,0 800 147,0-153,0 1070 C-Nr. 4 394 805 900 187,0-193,0 920 100 130,0-170,0 300 27,0-33 700 162,0-168,0 100 130,0-170,0 300 27,0-33 C-Nr. 4 394 807 900 200,0-206,0 920 100 130,0-170,0 300 27,0-33 C-Nr. 4 394 809 900 203,0-209,0 920 100 130,0-170,0 300 19,0-25										
050 207,0-213,0 1070 100 130,0-170,0 300 19,0-25 900 161,0-175,0 800 147,0-153,0										
900 161,0-175,0 800 147,0-153,0 C-Nr. 4 394 805 900 187,0-193,0 920 100 130,0-170,0 300 27,0-33 700 162,0-168,0 C-Nr. 4 394 807 900 200,0-206,0 920 100 130,0-170,0 300 27,0-33 700 184,0-190,0 C-Nr. 4 394 809 900 203,0-209,0 920 100 130,0-170,0 300 19,0-25										40.000
800 147,0-153,0 C-Nr. 4 394 805 900 187,0-193,0 920 100 130,0-170,0 300 27,0-33 700 162,0-168,0 C-Nr. 4 394 807 900 200,0-206,0 920 100 130,0-170,0 300 27,0-33 700 184,0-190,0 C-Nr. 4 394 809 900 203,0-209,0 920 100 130,0-170,0 300 19,0-25	050		1070				100	130,0-170,0	300	19,0-25,
900 187,0-193,0 920 100 130,0-170,0 300 27,0-33 700 162,0-168,0	800									
900 187,0-193,0 920 100 130,0-170,0 300 27,0-33 700 162,0-168,0										
700 162,0-168,0 C-Nr. 4 394 807 900 200,0-206,0 920 100 130,0-170,0 300 27,0-33 700 184,0-190,0 C-Nr. 4 394 809 900 203,0-209,0 920 100 130,0-170,0 300 19,0-25			000				100	120 0-170 0	200	27 0-22
C-Nr. 4 394 807 900 200,0-206,0 920 100 130,0-170,0 300 27,0-33 700 184,0-190,0 C-Nr. 4 394 809 900 203,0-209,0 920 100 130,0-170,0 300 19,0-25			920				100	130,0-170,0	300	27,0-33,
900 200,0-206,0 920 100 130,0-170,0 300 27,0-33 700 184,0-190,0										
700 184,0-190,0 C-Nr. 4 394 809 900 203,0-209,0 920 100 130,0-170,0 300 19,0-25							4			
C-Nr. 4 394 809 900 203,0-209,0 920 100 130,0-170,0 300 19,0-25	900		920				100	130,0-170,0	300	27,0-33,
900 203,0-209,0 920 100 130,0-170,0 300 19,0-25	/00	104,07130,0								
200,0 200,0	C-Nr.	4 394 809								
700 209,0-215,0	900		920				100	130,0-170,0	300	19,0-25,
	700	209,0-215,0								

Full-load o		Breakaway (2b) Fuel delivery characteristics (5e) Sk		Starting fuel delivery 6		LOW 101	e speed 5		
Control-ro Test oil te	mp. 40°C (104°F) 2	intermediate spe		INGN COR I	(S)	awitchin	g point	Control rod	
tex/uniu	cm ³ /1000 strokes	revimin	(4)	rev/min	cm ³ /1000 strokes		cm ³ /1000 strokes	rev/mm	M M
1	2	3		4	5	6	7	8	9
AC-Nr.	4 394 811								
750 600	185,0-191,0 222,0-228,0	770				100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 813								
800 600	210,0-218,0 223,0-229,0	820				100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 815								
1050 900 700	222,0-228,0 202,0-208,0 207,0-213,0	1070				100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 817	-	•						
1000 800 600	240,0-246,0 224,0-230,0 237,0-243,0	1020				100	130,0-170,0	300	19,0-25,
AC-Nr.	4 394 819								
1050 900 700	245,0-251,0 224,0-230,0 237,0-243,0	1070				100	130,0-170,0	300	19,0-25,
lC-Nr.	4 394 821								
000 800 600	217,0-223,0 197,0-203,0 219,0-225,0	1020				100	130,0-170,0	300	19,0-25,
IC-Nr.	4 394 823								
900 700	210,0-216,0 212,0-218,0	920				100	130,0-170,0	300	27,0-33,
C-Nr.	4 394 825								
	269,0-275,0 281,0-287,0 293,0-299,0	1070				100	130,0-170,0	300	19,0-25,
C-Nr.	4 394 827	_							
900	234,0-240,0 246,0-252,0 268,0-274,0	1070				100	130,0-170,0	300	19,0-25,
C-Nr.	4 394 829								
900	262,0-268,0 279,0-285,0 289,0-295,0	1070				100	130,0-170,0	300 1	19,0-25,
C-Nr.	4 394 831								
900	241,0-247,0 265,0-271,0 268,0-274,0	1070				100	130,0-170,0	300 1	9,0-25,

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714

C.	Settings	for Fuel Inject	ion Pump with	Fitted Governor

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	delivery	Breakaway (20) Fuel del	very characteristics	Sa Starting	fuel delivery 6	Low idl	e specd 5
Control-	rod stop temp. 40°C (104°F) (2)	intennethate apeed	\sim 1	(3)	ldie switchi	ng point		Control root
ten/umu	cm ² /1000 strokes	ł	tev/min	cm ³ /1000 strokes	rev/min		reiv/min	mm .
1	12	3		5	6	7	8	9
C-Nr.	4 394 833							
900	232,0-238,0	920			100	130,0-170,0	300 1	9.0-25.
700	253,0-259,0							J, J L L J
C-Nr.	4 394 835							•
750	244,0-250,0	770			100	130,0-170,0	300 1	9,0-25,
700	253,0-259,0							
	4 394 837							
800 600	239,0-245,0 248,0-254,0	820			100	130,0-170,0	300 1	9,0-25,
	4 394 839							
000	212,0-218,0	1020			100	130,0-170,0	300 1	9 0-25
800	230,0-236,0					100,0 170,0	300 ,	J,0 2J,
C-Nr.	4 394 841							
900	288,0-294,0	920			100	130,0-170,0	300 2	7,0-33,
700	287,0-293,0							
	4 394 843							
000 800	255,0-261,0 272,0-278,0	1020			100	130,0-170,0	300 1	9,0-25,
600	270,0-276,0							
C-Nr.	4 394 845							
050	239,0-245,0	1070			100	130,0-170,0	300 1	9,0-25,
900 700	233,0-239,0 273,0-279,0							
C-Nr.	4 394 847							
000	215,0-221,0	1020			100	130,0-170,0	300 19	9,0-25,
300 500	197,0-203,0 220,0-226,0							
C-Nr.	4 394 849							
900	222,0-228,0	920 .			100	130,0-170,0	300 19	9.0-25.
700	254,0-260,0							,,,,,
C-Nr.	4 394 851							
	257,0-263,0 272,0-278,0	1070			100	130,0-170,0	300 27	7,0-33,
	4 394 853	107E			400	420 0 470 0	202 2-	
	295,0-303,0 309,0-315,0	1075			100	130,0-170,0	300 Z	, U ,
-Nr.	4 394 857							
	262,0-268,0	1070			100	130,0-170,0	300 19	0.0-25
	267,0-273.0					,,0,0		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

E20

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Control-	I delivery rod stop emp. 40°C (104°F) (2)	Breaksway (20 Fuel deli high ide	very characteristics (Sa speed (Sb)	I KONO	fuel delivery 6	Low idl	e speed 5
rev/min	cm³/1000 strokes		rev/min	cm³/1000 strokes		cm³/1000 strokes	ONE /TOUR	Control rod travel mm
1	2	3	4	5	6	7	8	9
					1			
AC-Nr.	4 394 861							
1050 900 700	296,0-302,0 301,0-307,0 309,0-315,0	1070			100	130,0-170,0	300 1	9,0-25,
AC-Nr.	4 394 863							
930 930 700	253,0-256,0 252,0-258,0 269,0-275,0	1070			100	130,0-170,0	300 1	9,0-25,
AC-Nr.	4 394 865							
900 700	208,0-214,0 230,0-236,0 260,0-266,0	1070			100	130,0-170,0	300 1	9,0-25,
\c-Nr.	4 394 867							
900 700	181,0-187,0 172,0-178,0	920			100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 869							
925 800 700	176,0-182,0 162,0-168,0 177,0-183,0	945			100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 871							
900 800	173,0-179,0 160,0-166,0	920			100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 873					•		
925 800 700	237,0-243,0 251,0-257,0 269,0-275,0	945			100	130,0-170,0	300 2	7,0-33,
C-Nr.	4 394 875							
700 600	218,0-224,0 240,0-246,0	720			100	130,0-170,0	300 2	7,0-33,
C-Nr.	4 394 877	-						
	213,0-219,0 212,0-218,0 240,0-246,0	1060-1080			100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 879							
050	211,0-220,0	1055-1075	975 700 600	237,5-247,0 258,5-269,5 255,5-266,0	100	130,0-170,0	19,0-	25,0

Tilt stop part position to obtain quantity at 1050 PRM. Adjust stop part position to obtain mean curve above.

C.	Settings	for Fuel In	jection Pu	mp with	Fitted !	Governor

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Full-foad	delivery	Breakaway (20)		very characteristics (5e		fuel delivery (6)	Low id	le speed 5
Control 1 Test od ti	od stop kmp. 40°C (104°F) (2)	ritermediate speed	high ide s	(a)	idle switchir	g point		Control rod
rev/min	cm³/1000 strokes	rev/min 40	rev/min	cm ³ /1000 strokes	rev/min	cm ³ /1000 strokes	reiv/mir	travel mm
1-	2	3	4	5	6	7	8	9
i		•		•	•			
AC-Nr.	4 394 881							
700 600	246.0 263.0	720 ·			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 833							
1050	244,5-254,5	1060-1080			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 885							
600	258,0				100	130,0-170,0	300	27,0
AC-Nr.	4 394 891							
600	167,0-175,0	620			100	130,0-170,0	300	25,0
AC-Nr.	4 394 893							•
900 700	259,0-267,0 238,0-246,0	925			100	130,0-170,0	300	19,0-29,0
AC-Nr.	4 394 895							
1000 800	188,0-196,0 180,0-187,0	1025			100	130,0-170,0	300	25,0
AC-Nr.	4 394 897							
850 750	189,0-197,0 185,0-193,0	875			100	130,0-170,0	325	30,0
AC-Nr.	4 394 899							
900 700	175,0 158,0	925			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 905							
1000 700	239,0-247,0 229,0-235,0	1025			100	130,0-170,0	300	25,0
AC-Nr.	4 394 907							
900 800	161,0 151,0	925 ·			100	130,0-170,0	300	19,0-25,0
Beginn 0,90 b	ing of movement ar pressure, ga	t: 0,40 - 0,4 ap should be	5 bar "020".	at 750 PRM a	nd			
AC-Nr.	4 394 909							
1050	202,0-210,5	1060-1080			100	130,0-170,0	300	19,0-25,0
	4 394 911							
1000	230,5-239,5	1010-1030			100	130,0-170,0	300	19,0-25,0
	4 394 915							
1000	203,0-211,5	1010-1030			100	130,0-170,0	300	19,0-25,0

C. Settings for Fuel Injection Pump with Fitted Governor

Full-load d Control-ro Test od ten	d stop	Breakaway 20 untermediale speed	Fuel delichigh idle s	very characteristics (5e)	Starting idle switchir	<u> </u>	Low idl	e speed 5
rev/min	cm³/1000 strokes	revimin 49	rev/min	cm ³ /1000 strokes	rev/min	cm ³ /1000 strokes	rev/min	travel mm
1	2	3	4	5	6	7	8	9
1								

-20-

AC-Nr. 4 394 917

1050 260.5-271.0 1060-1080

100 130,0-170,0 300 19,0-25,0

Beginning of movement: 0,40 - 0,45 bar at 750 PRM and 0,90 bar pressure, gap should be "020".

AC-Nr. 4 394 919

1050 215,5-261,5 1060-1080

130,0-170,0 300 19,0-25,0

AC-Nr. 4 394 921

1050 260,5-271,0 1060-1080 900

267,0-278,0 100 130,0-170,0 300 19,0-25,0

700 267,0-278,0

Tilt stop part position to obtain quantity at 1050 PRM. Adjust stop part position to obtain mean curve above. Beginning of movement: 0,40 - 0,45 bar at 750 PRM and 0,90 bar pressure, gap should be "020".

AC-Nr. 4 394 925

1050 244,0 900 234,0 1070

100 130,0-170,0 300 19,0-25,0

AC-Nr. 4 394 997

900 173,0-179,0 800

160,0-166,0

920

100 130,0-170,0 300 19,0-25,0

Testoil-ISO 4113

40

WPP 001/4 ALO 16,0 b

En.

PE 6 P 120/420 LS 152 RQV 300...1050 PA 154 KR 0 401 846 178; 0 401 846 228 1 - 5 - 3 - 6 - 2 - 4

supersedes

companyAllis-Chalmers engine 16000-25000 443 022 and fuel-injectio

Values only apply to test nozzle-and-holder assembly 0 681 443 022 and fuel-injection test tubing 9 681 230 703

All test specifications are valid for Bosch Fuel Injection Pump Test Benches and Testers

A. Fuel Injection Pump Settings

Port closing at prestroke

2,8 + 0,1

mm (from BDC)

		50 T U 1					
Rotational speed rev/min	Control rod travel mm 2	Fuel delivery cm ³ /100 strokes 3	Difference cm³/ 100 strokes	Control rod travel mm 2	Fuel delivery cm ³ /100 strokes 3	Spring pre-tensioning (torque-control valve) mm	
1000	12	26,4 - 27,1			1,0		
600	6 12	8,6 - 9,8 26,2 - 28,2					
200	15 6	33,8 - 36,2 4,2 - 5,2					

Adjust the fuel delivery from each outlet according to the values in

B. Governor Settings

Upper rated	speed			Intermediate	rated sp	eed	Lower rated	speed		Sliding s	leeve travel
Degree of deflection of control lever	rev/min Control rod travel mm	Control rod travel mm rev/min	(a) (2a)	Degree of deflection of control lever	rev/min	Control rod travel mm 4	Degree of deflection of control lever 7	rev/min	Control rod travel mm 3	rev/min	1) mm 11
66°	1050 1100 1150 1210	15,0-18 10,7-15 6,0-11 0,7	,0				10°	250 350 450 550	6,4-8,0 3,0-5,2 1,3-2,8		

Torque control travel a =

ma

C. Settings for Fuel Injection Pump with Fitted Governor

Full-load de Control-roe Test oil ten		Rotational-speed (20) Ilmitation intermediate speed	Fuel deliv		Starting Idle switchir		Torque- travel	Control rod
rev/min	cm ³ /1000 strokes	rev/min 4a	rev/min	cm³/1000 strokes	rev/min	cm ³ /1000 strokes	rev/min	travel mm
1	2	3	4	5	6	7	8	9

Checking values in brackets

* 1 mm less control rod travel than col. 2

1	Full-load	d delivery	Breakaway	(26)	Full-load o	lelivery (a)	Starting	fuel delivery 6	LOW 1	dle speed 5
	Control	rod stop temp. 40°C (104°F) (2)	intermediate speed	$\mathbf{\mathcal{C}}$	Control-ro Test oil ter	lelivery d stop np. 40°C (104°F)	Idle	ng point		Control rod
	rev/min	cm³/1000 strokes	rev/min	②	rev/min	cm³/1000 strokes	rev/min	cm³/1000 strokes	rev/m	travel
	1	2	3	_	1	2	6	7	8	9
•		•	•	,		1	•	•	•	
	C-Nr.									
1	025	91,0- 93,0	1040	7	700	99,0-103,0	100	90,0-130,0	300	19,0-25,0
A	C-Nr.	4 320 793								
10	000	122,0-124,0	1020	7	700	126,0-130,0	100	90,0-130,0	300	19,0-25,0
Αſ	-Nr.	4 320 815								
	900	100,0-106,0	910-920	7	00	101,0-107,0	100	90,0-130,0	200	10 0 25 0
•	,00	10030 10030	310-320		00	111,0-117,0		30,0-130,0	300	19,0-25,0
Ar	-Nr.	4 320 816								
	900	97,0-103,0	910-920	Я	800	98,0-104,0	100	90,0-130,0	300	10 0-25 0
						30,0 104,0	100	30,0-130,0	300	19,0-25,0
		4 320 817	4400	•		440 0 400 0				
1 (00	139,0-143,0	1120		00	149,0-154,0 153,0-161,0		90,0-130,0	375	9,0-19,0
40	Man	4 220 020								•
	00	4 320 829	1120	0	00	440 0 454 0	400	00 0 400 0		
	υü	139,0-143,0	1120			149,0-154,0 153,0-161,0	100	90,0-130,0	375	9,0-19,0
۸٥	_ A1 sa	4 320 933								
	00	102,0-110,0	1040	0	00	107 0 116 0	400	00 0 400 0	200	
			1040	0	00	107,0-116,0	100	90,0-130,0	300	25,0
		4 320 939								.
9	00	98,5 <u>+</u> 3	1040	7	00	107,5 <u>+</u> 4	100	90,0-130,0	300	25,0
AC	-Nr.	4 320 940								
9	00	78,0- 86,0	1040	7	00	100,0-109,0	100	90,0-130,0	300	25,0
AC	-Nr.	4 320 941								
10		91,0- 93,0	1040	71	00	99,0-103,0	100	90,0-130,0	300	10 0-25 0
						33,0 103,0	. 100	30,0-130,0	300	13,0-25,0
		4 320 942		_						
10	טט	122,0-124,0	1020	/(00 1	126,0-130,0	100	90,0-130,0	300	19,0-25,0
AC-	-Nr.	4 320 980								
9	00	108,0-116,0	1120	80	00	-	100	90,0-130,0	375	9,0-19,0
AC-	-Nr.	4 320 981								
90	00	111,0-119,0	1020	80	0 1	12,0-118,0	100	90,0-130,0	300	25,0
۸۲.	-Na	4 321 016							500	2030
75		· · · · · · ·	1020	75	:n	95,0-101,0	100	00 0 420 0	200	05.6
			1020	/:	,,,	JU-101,U	100	90,0-130,0	300	25,0
		4 321 064			_					
100	10	112,0	1030	80	10 1	12,5	100	90,0-130,0	300	25,0

F2

Full-load (Control-re Yest oil te		Breakaway (Full-toad Control-r Test oil to		Starting fi Idle switchin	uel delivery 6 g paint	Low idl	Control rod
resimin	cm ² /1000 strokes	rev/min	rev/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	rev/min	travei mm
1	2	3	1	2	6	7	8	9
IC-Nr.	•		700	404 0 407 0	400	00 0 420 0	200	10 0 25
900	100,0-106,0	910-920	700 600	101,0-107,0 111,0-117,0	100	90,0-130,0	300	19,0-25
	4 359 826	040-020	900	98,0-104,0	100	90,0-130,0	300	10 0-25
900	97,0-103,0	910-920	800	30,0-104,0	100	90,0-130,0	300	13,0~23
C-Nr.	4 359 828							
100	139,0-143,0	1120	800 600	149,0-154,0 153,0-161,0	100	90,0-130,0	375	9,0-19
			000	155,0-101,0				
NC-Nr.	4 359 830							
025	91,0- 93,0	1040	700	99,0-103,0	100	90,0-130,0	300	19,0-25
C-Nr.	4 359 832							
000	122,0-124,0	1020	700	126,0-130,0	100	90,0-130,0	300	19,0-25
C-Nr	4 392 693							
050	205,0-215,0	1065-80	900	167,0-177,0	100	130,0-170,0	300	19.0-25
		1005 00	300	107,0 177,0		,.		,
_	4 392 695						200	40 0 05
900	149,0-155,0	920	-	-	-	-	300	19,0-25
IC-Nr.	4 392 697							
750	185,0-191,0	770	600	222,0-228,0	100	130,0-170,0	300	19,0-25
IC-Nr.	4 392 699							
800	210,0-218,0	820	600	223,0-229,0	100	130,0-170,0	300	19.0-25
		0.00						
	4 392 701	020	700	209,0-215,0	100	130,0-170,0	300	10 0-25
900	203,0-209,0	920	700	209,0-215,0	100	130,0-170,0	300	13,0-23
C-Nr.	4 392 703							
050	220,0-230,0	1060-70	900 700	200,0-210,0 205,0-215,0		130,0-170,0	300	19,0-25
			700	203,0-213,0	1			
NC-Nr.	4 392 707					•		
050	243,0-253,0	1060-80	900	222,0-232,0		130,0-170,0	300	19,0-25
			700	235,0-245,0				
NC-Nr.	4 392 709							
1000	217,0-223,0	1020	800 600	197,0-203,0 219,0-225,0		130,0-170,0	300	19,0-25
			600	213,0-223,0				
C-Nr.	4 392 711							
600	231,0-237,0	620	-	-	-	-	300	19,0-25

F 3

_	

Full-load o Control-ro Test oil te		Breakaway	(20) eed	Full-load delivery Control-rod slop Test oil temp. 40°C (104°F)		Starting Idle switchin	fuel delivery 6	Low idle speed 5 Control roc	
rev/min	cm³/1000 strokes	revimin	•	rev/min	cm³/1000 strokes	rev/min	cm³/1000 strokes	reiv/mun 8	travel
·		1			f		· · · · · · · · · · · · · · · · · · ·		
C-Nr.	4 392 715								
050	187,0-193,0	1070		900 700	174,0-180,0 175,0-181,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 717								
050	224,0-230,0	1070	,	800	185,0-191,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 719								
050	200,0-206,0	1070		900 700	190,0-196,0 214,0-220,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392°721								
050	242,0-248,0	1070		900 700	220,0-226,0 230,0-236,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 723								
750	244,0-250,0	770		700	253,0-259,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 725								
800	239,0-245,0	820	(600	248,0-254,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 727								
900	232,0-238,0	920		700	253,0-259,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 729								
	212,0-218,0	1020		800	230,0-236,0	160	130,0-170,0	300	19,0-25
C-Nr.	4 392 731								
	288,0-294,0	920	•	700	287,0-293,0	100	130,0-170,0	300	27.0-33
	4 392 735						•		_, ••••
	239,0-245,0	1070	9	900	233.0-239,0	100	130,0-170,0	300	19.0-25
				700	273,0-279,0		, - , , - , - , - , - , - , - , - , - ,		-,
C-Nr.	4 392 737					•			
000	215,0-221,0	1020		B 00 5 00	197,0-203,0 220,0-226,0	100	130,0-170,0	300	19,0-25
			'		220,0-220,0				
	4 392 739	4672		200	400 0 000	40-	400 0 4-0		
050	207,0-213,0	1050		900 700	195,0-201,0 225,0-231,0	100	130,0-170,0	300	19,0-25
-Nr	4 392 741				-				
	213,0-219,0	1070	9	900	202,0-208,0	100	130,0-170,0	-	-
	,,.			700	230,0-236,0				
C-Nr.	4 392 743								
)50	220,0-226,0	1070		900	210,0-216,0	100	130,0-170,0	300	19,0-25
	•	•		700	243,0-249,0				

C.	Settings	for Fuel I	njection	Pump with	Fitted	Governor

Full-load delivery Control-rod stop Test oil temp. 40°C (104°F) (2)		Breakaway intermediate aper		Control-rod stop		Starting Idle awitchir	fuel delivery 6	Low idle speed 5	
rev/min	cm³/1000 strokes	rev/min	(4)	· v/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	reiv/mu	travel n mm
1	2	3	 -		2	6	7	8	9
			•			•			
	4 392 747					400	400 0 470 0	202	40.0.05
050	227,0-233,0	1070	90 70		208,0-214,0 247,0-253,0	100	130,0-170,0	300	19,0-25
C-Nr	4 392 749								
050	230,0-234,0	1070	-	•	-	100	130,0-170,0	300	19,0-25
	4 392 750								
050	230,0-234,0	1070	-		-	100	130,0-170,0	300	19.0-25
	4 392 768								,.
800	123,0-133,0	820	60	0	132,0-142,0	100	130,0-170,0	300	19.0-25
		020	0.		.02,0,0	,,,,	,		.,,,
875	4 392 775/776 162,0-164,0	890	60	ñ	140,0-144,0	100	130,0-170,0	300	19.0-25
		030	-		140,0 144,0	100	100,0 170,0	555	15,0 25
	4 392 777	070	70	n	195,0-199,0	100	130,0-170,0	200	10 0-25
950	205,0-207,0	970	70	U	133,0-133,0	100	130,0-170,0	300	19,0-23
	4 392 778		7.	Α.	405 0 000 0	400	400 0 470 0	200	04 0 03
950	208,0-214,0	990	75		196,0-202,0	100	130,0-170,0	300	21,0-2/
	3 392 779			_					
025	190,0-200,0	1030-40	100 90		191,0-201,0 178,0-188,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 781								
025	228,0-238,0	1050-60	90		205,0-215,0	100	130,0-170,0	300	19,0-25
			70	0	207,0-217,0				
C-Nr.	4 392 953								
940	185,0-195,0	955-65	-		-	100	130,0-170,0	300	19,0-25
C-Nr.	4 393 095								
050	211,0-221,0	1060-80	90		210,0-220,0	100	130,0-170,0	300	19,0-25
			70	U	238,0-248,0				
	4 393 307			_		400	400 0 470 0		
900	210,0-216,0	920	70	U	212,0-218,0	100	130,0-170,0	300	27,0-33
	4 393 431			_					
050	208,0-214,0	1070	90 70		230,0-235,0 260,0-266,0	100	130,0-170,0	300	19,0-25
C_N s	4 393 821								
050	242,0-248,0	1070	90	0	220,0-226,0	100	130,0-170,0	300	19,0-25
.	CTC O CTU O	1070	70		230,0-236,0		,.		, 0 - E.J

Control	d delivery rod stop			nd delivery Frod stop	ldie -	fuel delivery 6	Low idle speed 5		
Test oil	temp. 40°C (104°F) (2)		Test of	temp. 40°C (104°F)	switchi	1	Control rod travel rev/min I mm		
rev/min	cm ³ /1000 strokes	revimin 3	rev/min	2	6	cm³/1000 strokes 7	rev/min mm 8 9		
			J	1	ŧ		1 1		
AC-Nr.	. 4 393 823								
1050	187,0-193,0	1070	900 700	174,0-180,0 175,0-181,0	100	130,0-170,0	300 19,0-25,		
AC-Nr.	. 4 393 8̃25								
1050	224,0-230,0	1070	800	185,0-191,0	100	130,0-170,0	300 19,0-25,		
AC-Nr.	4 393 827						•		
1050	200,0-206,0	1070	900 700	190,0-196,0 214,0-220,0	100	130,0-170,0	300 19,0-25,		
AC-Nr.	4 393 829								
1050	230,0-234,0	1070	-	-	100	130,0-170,0	300 19,0-25,		
AC-Nr.	4 393 831								
1050	213,0-219,0	1070	900 700	202,0-208,0 230,0-236,0	100	130,0-170,0			
AC-Nr.	4 393 833								
1050	264,0	1060-1080	900	280,5	100	130,0-170,0	300 19,0-25,		
AC-Nr.	4 393 835								
050	220,0-226,0	1070	900 700	210,0-216,0 243,0-249,0	100	130,0-170,0	300 19,0,25,		
NC-Nr.	4 393 837								
050	227,0-233,0	1070	900 700	208,0-214,0 247,0-253,0	100	130,0-170,0	300 19,0-25,0		
C-Nr.	4 393 890								
950	208,0-214,0	990	750	196,0-202,0	100	130,0-170,0	300 21,0-27,0		
C-Nr.	4 393 891						•		
955	208,0	965-975	895	203,0	-		-		
C-Nr.	4 393 961								
900	181,0-187,0	920	700	172,0-178,0	100	130,0-170,0	300 19,0-25,0		
C-Nr	4 394 001						,,.		
700	218,0-224,0	720	600	240,0-246,0	100	130 0-170 0	300 27 , 0-33,0		
	_			0,0 670,0	.55	100,0-1/0,0	<i></i>		
950	4 394 017 208,0-214,0	ggn	750	106 0-202 0	100	420 0 470 0	200 04 0 00 0		
		990	730	196,0-202,0	100	130,0-1/0,0	300 21,0-27,0		
	4 394 020	705	c 0 0	000 0 000					
700	249,0-257,0	725	600	258,0-264,0	100	130,0-170,0	300 19,0-29,0		

Contro	ad delivery H-rod stop I temp. 40°C (104°F) (2)	Breakaway (2)	Control-re	Selivery 2 od stop mp. 40°C (104°F)	idle	fuel delivery 6	Low idl	e speed 5
revimu		rev/min 4		cm³/1000 strokes		cm³/1000 strokes	rev/min	travel mm
1-	2	3	1-	2	6	7	8	9
	4 394 062							
800	113,0-119,0	820	600	102,0-108,0	100	130,0-170,0	300	19,0-25,0
AC-Nr	. 4 394 064							
875	161,0-165,0	890	600	140,0-144,0	100	130,0-170,0	300	19,0-25,0
AC-Nr	. 4 394 066							
800	125,0-131,0	820	600	134,0-140,0	100	130,0-170-0	300 1	9.0-25.0
AC-Nr	. 4 394 068							
1025	192,0-198,0	1045	900	180,0-186,0	100	130,0-170,0	300 t	0 0-2F 0
				100,0 100,0	100	130,0-170,0	300 1	3,0-25,0
1000	. 4 394 070 200,0-206,0	1020	000	400 0 400 0	400	400 0 400 0		
1000	200,0-200,0		800 600	180,0-186,0 189,0-195,0	100	130,0-170,0	300 1	9,0-25,0
AC-Nr	. 4 394 072							
940	185,0-195,0	955-65			100	120 0-170 0	200 4	0 0 0 0
	•	333 03		_	100	130,0-170,0	300 1	9,0-25,0
	4 394 074							
1025	230,0-236,0		900 700	207,0-213,0 209,0-215,0	100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 076							
1000	227,0-233,0	1020	B 00	197,0-203,0	100	120 0-170 0	200 4	0 0 0 0
	-	1060	500	137,0-203,0	100	130,0-170,0	300 1	9,0-25,0
	4 394 078	4000					•	
1000	235,0-241,0	1020	700	263,0-269,0	100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 080							
1000	220,0-226,0			209,0-215,0	100	130,0-170,0	300 1	9,0,25,0
		,	500	227,0-233,0				
	4 394 082							
910	190,0	930 -	•	-	100	130,0-170,0	300 2	5,0
AC-Nr.	4 394 084							
900	160,0-166,0	920 7	00	139,0-145,0	100	130,0-170,0	300 19	9,0-25,0
AC-Nr.	4 394 086							
600	124,0-130,0	620 -		-	100	130,0-170,0 3	100 10	1.0-25 O
AC-Nr.	4 394 088						, , ,	,,0 23,0
700	127,0-133,0	720 6	00 1	24,0-130,0	100	120 0 170 0 6	.00 40	
	•		5 0 1	LT3U-IJU3U	100	130,0-170,0 3	19	,0-25,0
AC-Nr.	4 394 090	000	007	04 0 400 0				
000	139,0-145,0	820 6	00° 1	24,0-130,0	100	130,0-170,0 3	00 19	,0-25,0

F 7

C. Settings for Fuel Injection Pump with Fitted Gove	mor
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- 14	Control	I delivery rod stop	Breakaway	②	Control	od stop	idle	fuel delivery 6	LOW 1	ile speed 3
1	Test oil I	amp. 40°C (104°F) (2	1			imp. 40°C (104°F)		ng point		Control rod travel
	Lev/Will	cm ³ /1000 strokes	rev/min 3	(9)	revimin 1	cm³/1000 strokes	6	cmV1000 strokes	r é v <i>i</i> mi 8	o man
F										
AC	-Nr.	4 394 092								
9	25	157,0-163,0	945		300 500	145,0-151,0 134,0-140,0	100	130,0-170,0	300	19,0-25,0
AC	-Nr.	4 394 094								
	00	180,0-186,0	1020		300 700	154,0-160,0 142,0-148,0	100	130,0-170,0	300	19,0-25,0
AC	-Nr.	4 394 096								
	50	207,0-213,0	1070		900 300	161,0-175,0 147,0-153,0	100	130,0-170,0	300	19,0-25,0
		4 394 098								
	00	187,0-193,0	920	7	700	162,0-168,0	100	130,0-170,0	300	27,0-33,0
	-Nr. 00	4 394 100 200,0-206,0	920	7	00	184,0-190,0	100	130,0-170,0	300	27,0-33,0
	-Nr. 00	4 394 102 203,0-209,0	920	7	00	209.0-215.0	100	130,0-170,0	300	19 0-25 0
		4 394 104				,.		100,0 170,0	000	13,0-23,0
	50	185,0-191,0	770	6	00	222,0-228,0	100	130,0-170,0	300	19,0-25,0
	-Nr. 00	4 394 106 210,0-218,0	820	6	00	223,0-229,0	100	130,0-170,0	300	19,0-25,0
AC-	-Nr.	4 394 108							•	
105	50	222,0-228,0	1070		00 00	202,0-208,0 207,0-213,0	100	130,0-170,0	300	19,0-25,0
		4 394 110								
100	30	240,0-246,0	1020		00 00	224,0-230,0 237,0-243,0	100	130,0-170,0	300	19,0-25,0
		4 394 112								
105	50	245,0-251,0	1070		00 00	224,0-230,0 237,0-243,0	100	130,0-170,0	300	19,0-25,0
AC-	Nr.	4 394 114								
100	00	217,0-223,0	1020		00 00	197,0-203,0 219,0-225,0	100	130,0-170,0	300	19,0-25,0
		4 394 116								
90	10	210,0-216,0	920	70	00	212,0-218,0	100	130,0-170,0	300 2	27,0-33,0
		4 394 118								
105	50	269,0-275,0	1070			281,0-287,0 293,0-299,0	100	130,0-170,0	300 1	9,0-25,0

C. Settings for Fuel I	jection Pump with Fitted Governor
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Full-load delivery Control-rod stop Test oil temp. 40°C (104°F) 2		Breakaway (2)	Control-re	Control-rod stop		Starting fuel delivery (6) idle switching point		Low idle speed 3	
rev/min	cm³/1000 strokes	rev/min 4		cm³/1000 strokes		cm ³ /1000 strokes	rév/mn	travel mm	
1	2	3	-	2	6	7	8	9	
ic-Nr.	4 394 120								
050	234,0-240,0	1070	900 700	246,0-252,0 268,0-274,0	100	130,0-170,0	300	19,0-25	
C-Nr.	4 394 122								
050	262,0-268,0	1070	900 700	279,0-285,0 289,0-295,0	100	130,0-170,0	300	19,0-25	
C-Nr.	4 394 124								
050	241,0-247,0	1070	900 700	265,0-271,0 268,0-274,0	100	130,0-170,0	300	19,0-25	
C-Nr. 900	4 394 126 232,0-238,0	920	700	253,0-259,0	100	130,0-170,0	300	19.0-25	
				200,0	,			,.	
750	4 394 128 244,0-250,0	770	700	253,0-259,0	100	130,0-170,0	300	19,0-25	
	4 394 130	820	600	248.0-254.0	100	130,0-170,0	300	10 0-25	
800	239,0-245,0	020	600	240,0-234,0	100	130,0~170,9	300	13,0~23	
C-Nr. 000	4 394 132 212,0-218,0	1020	800	230,0-236,0	100	130,0-170,0	300	19,0-25	
C-Nr.	4 394 134								
900	288,0-294,0	920	700	287,0-293,0	100	130,0-170,0	300	27,0-33	
C-Nr.	4 394 136						•		
000	255,0-261,0	1020	800 600	272,0-278,0 270,0-276,0	100	130,0-170,0	300	19,0-25	
C-Nr.	4 394 138								
050	239,0-245,0	1070	900 700	233,0-239,0 273,0-279,0	100	130,0-170,0	300	19,0-25	
C-Nr.	4 394 140								
000	215,0-221,0	1020	800 600	197,0-203,0 220,0-226,0	100	130,0-170,0	300	19,0-25	
	4 394 142	000	700	054 0 000 0	400	420 0 470 0	200		
900	222,0-228,0	920	700	254,0-260,0	100	130,0-170,0	300	19,0-25	
	4 394 144								
050	257,0-263,0	1070	750	272,0-278,0	100	130,0-170,0	300	27,0-33	
C-Nr.	4 394 148								
050	295,0-303,0	1075	900	309,0-315,0	100	130,0-170,0	300	25,0	

C. Se	ttings for Fi	iei inject	ion i	rum	p with Fitte	d Go			
Full-load (Control-re Test oil te		Breakaway		Control to Control to	20 X 200	Starting lidle awitchin	منه	rom iqi	e speed 5
cev/min	cm³/1000 strokes	rev/min	❷,	ey/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	relv/min	travel mm
1	2	3			2	6	7	8	9
^ ^ _ N ∽	4 394 150	•	•		•	•	'		•
1050		1070		900	274.0-280.0	100	130,0-170,0	300	10 0-25
1030	268,0-274,0	1070		700	280,0-286,0	100	130,0*170,0	300	13,0-23,
AC-N-	4 394 152								
1050		1070		900	267,0-273,0	100	130,0-170,0	300	10 0-25
1030	262,0-268,0	1070		700	267,0-273,0	100	130,0-170,0	300	13,0-25,
AC-No	4 394 154								
1050	279,0-285,0	1070	c	900	283,0-289,0	100	130,0-170,0	300	19.0-25.
	2,0,0 000,0			700	293,0-299,0		,		,
AC-Nr.	4 394 156								
1050	296,0-302,0	1070		900	301,0-307,0	100	130,0-170,0	300	19,0-25,
			7	700	309,0-315,0				
AC-Nr.	4 394 158								
"	4 394 157								
1050	253,0-256,0	1070		000 200	252,0-258,0 269,0-275,0	100	130,0-170,0	300	19,0-25,
			•	00	203,0-2/3,0				
	4 394 160								
1050	208,0-214,0	1070		000 200	230,0-235,0 260,0-266,0	100	130,0-170,0	300	19,0-25,
C-No	4 394 162								
900	181,0-187,0	920	7	00	172,0-178,0	100	130,0-170,0	300	10 0-25
		320	•	00	172,0-170,0	100	130,0-170,0		13,0-23,
_	4 394 164								
925	176,0-182,0	945		00	162,0-168,0 177,0-183,0	100	130,0-170,0	300	19,0-25,
- ••			•	00	177,0 100,0				
	4 394 166		_						
900	173,0-179,0	920	8	00	160,0-166,0	100	130,0-170,0	300	19,0-25,
C-Nr.	4 394 168								
925	237,0-243,0	945		00	251,0-257,0	100	130,0-170,0	300	27,0-33,
			/	00	269,0-275,0				
	4 394 170								
700	218,0-224,0	720	6	00	240,0-246,0	100	130,0-170,0	300	27,0-33,
C-Nr.	4 394 176								
050	213,0-219,0	1070		00	212,0-218,0	100	130,0-170,0	300	19,0-25,
	-		7	00	240,0-246,0			•	•

-10-

Full-load d Control-ro Test oil ten	oots t	Breakaway 200 intermediate speed	Fuel delin high idle t		Starting Idle switching	ide delivery	Low idl	e speed 5
revimin	cm³/1000 strokes	rev/min 🚇	rev/min	cm³/1000 strokes	rev/min	cm ³ /1000 strokes	rev/min]	mm
1	2 .	3	4	5	6	7	8	9

AC-Nr. 4 394 246

1050 211,0-220,0 1055-1075 975 100 130,0-170,0 300 19,0-25,0 237,5-247,0

700 258,5-269,5 600 255,5-266,0

Adjust		ion to obtain quantity at 1050 ition to obtain mean curve above		
700 600	246,0 263,0	720	100	130,0-170,0 300 19,0-25,0
AC-Nr. 1050	4 394 250 244,5-254,5	1060-1080	100	130,0-170,0 300 19,0-25,0
AC-Nr. 600	4 394 257 258,0		100	130,0-170,0 300 27,0
AC-Nr. 1050 900 700	4 394 314 246,0 240,0 267,0	1070	100	130,0-170,0 300 19,0-25,0
AC-Nr. 1050 900 700	4 394 331 241,0-247,0 265,0-271,0 268,0-274,0	1070	100 .	130,0-170,0 300 19,0-25,0
AC-Nr. 1050 900 700	4 394 332 268,0-274,0 274,0-280,0 280,0-286,0	1070	100	130,0-170,0 300 19,0-25,0
1050 900	4 394 347 269,0-275,0 281,0-287,0 293,0-299,0	1070	100	130,0-170,0 300 19,0-25,0
	4 394 348 234,0-240,0	1070	100	130,0-170,0 300 19,0-25,0

900 246,0-252,0

700 268,0-274,0

AC-Nr. 4 394 349

100 130,0-170,0 300 19,0-25,0 1050 208,0-214,0 1070

230,0-236,0 900 700 260,0-266,0

AC-Nr. 4 394 350 1050

262,0-268,0 279,0-285,0 900 700 289,0-295,0

1070

100 130,0-170,0 300 19,0-25,0

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C.	Settings	for	Fuel	Injection	Pump with	Fitted	Governor
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-12-

C. Settings for Fuel Injection Pump with Fitted Governor										
Contro	id delivery il-rod stop I temp. 40°C (104°F) 2	Breakaway		Fuel delh high idle s	very characteristics (5e peed (30)	i idia	fuel delivery 6	Low idle speed 5		
rev/mu	1	rev/min	•	rev/min	cm³/1000 strokes	rev/min		raiv/mun	Control rod travel	
1	2	3		4	5	6	7	8	9	
		1								
	4 394 351									
1050 900 700	253,0-256,0 252,0-258,0 269,0-275,0	1070				100	130,0-170,0	300	19,0-25,0	
AC-Nr	. 4 394 352									
1050 900 700	262,0-268,0 267,0-273,0 267,0-273,0	1070				100	130,0-170,0	300	19,0-25,0	
AC-Nr	. 4 394 353									
1050 900 700	279,0-285,0 283,0-289,0 293,0-299,0	1070				100	130,0-170,0	300	19,0-25,0	
AC-Nr	. 4 394 354									
1050 900 700	296,0-302,0 301,0-307,0 309,0-315,0	1070				100	130,0-170,0	300 1	9,0-25,0	
AC-Nr.	. 4 394 356									
1050 900 700	246,0 240,0 267,0	1070				100	130,0-170,0	300 1	9,0-25,0	
AC-Nr.	4 394 386									
600	167,0-175,0	620				100	130,0-170,0	300 2	5,0	
	4 394 390									
900 700	259,0-267,0 238,0-246,0	925				100	130,0-170,0	300 1	9,0-29,0	
	4 394 428									
1000 800	188,0-196,0 180,0-187,0	1025		•		100	130,0-170,0	300 2	5,0	
AC-Nr.	4 394 473									
850 750	189,0-197,0 185,0-193,0	875				100	130,0-170,0 3	325 3	0,0	
AC-Nr.	4 394 501									
900 700	175,0 158,0	925				100	130,0-170,0 3	100 19	9,0-25,0	
\C-Nr.	4 394 521									
700 700	239,0-247,0 229,0-235,0	1025				100	130,0-170,0 3	00 25	5,0	
C-Nr.	4 394 527									
900 800	161,0 151,0	925				100	130,0-170,0 3	00 19	,0-25,0	

	delivery					Tuel delivery (6)	Low idle speed 5		
	rod stop lemp. 40°C (104°F) 2	intermediate speed	high idle	poed ®	awitchin	g point		Control rod	
ev/miņ	cm ² /1000 strokes	rev/min 49	rev/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	ráv/mu	travel mm	
	2	3	4	5	6	7	8	9	
C-Nr	. 4 394 541	•		•	•			•	
050	202,0-210,5	1060-1080			100	130,0-170,0	300	19,0-25	
C-Nr	. 4 394 550								
000	230,5-239,5	1010-1030			100	130,0-170,0	300	19,0-25	
C-Nr	. 4 394 561								
050 900	258,0 256,0	1060-1080			100	130,0-170,0	300	19,0-25,	
C-Nr.	. 4 394 564								
050 900	244,0 234,0	1070			100	130,0-170,0	300	19,0-25,	
C-Nr.	4 394 569			•					
000	203,0-211,5	1010-1030		•	100	130,0-170,0	300	19,0-25,	
C-Nr.	4 394 590								
050	260,5-271,0	1060-1080				130,0-170,0		-	
eginr e "0	ning of movemen 20".	t: 0,40 - 0,4	15 bar	at 750 PRM a	and 0,	90 bar pressu	re,	gap shoul	
C-Nr.	4 394 593								
)50	251,5-261,5	1060-1080			100	130,0-170,0	300	19,0-25,	
C-Nr.	4 394 703	٠							
350	260,5-271,0		900 700	267,0-278,0 267,0-278,0	100	130,0-170,0	300	19,0-25,	
btair	stop part posit n mean curve ab ressure, gap sh	ove. Beginnii	ng of i	tity at 1050	PRM. A	Adjust stop p ,45 bar at 75	art p 0 PR	osition Mand 0,9	
-Nr.	4 394 705 4 394 706								
50 00	258,0 256,0	1060-1080	•		100	130,0-170 3	00	19,0-25,0	
-Nr.	4 394 707								
50 00	244,0 234,0	1070	•		100	130,0-170,0	300	19,0-25,0	
-Nr.	4 394 718								
55 00	198,0-213,0 196,0-210,0	965-975			100	130,0-170,0	300 2	21,0-27,0	
						•			
-Nr.	4 394 719								

AC-Nr. 4 394 733 1000 255,0-261,0 1020 800 272,0-278,0 600 270,0-276,0

100 130,0-170,0 300 19,0-25,0

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F 13

_		A	In add on Darm		maa izavamar
~	CASSINGO	tor bligh in	weton wun	HO WILL IT	tted Governor
	341111111111111111111111111111111111111	IUI FUGILII	MANAII I WII		

C. Se	ttings for Fu	el injection			u Goi		Low idl	C beside a
Full-load d Control-ro	elivery d stop	Breakaway 20	Fuel delik high idle t	very characteristics (54) peed (30)	Idla	sel delivery (6)		Control rod
Test oil ter	np. 40°C (104°F) (2)	intermediate speed		1	switching	cm ³ /1000 strokes	rdy/min i	travel
rev/min	cm ³ /1000 strokes	rev/min 44	rev/min	cm ³ /1000 strokes	1	7	8	0
1	2		1		1		}	1
AC-Nr.	4 394 740/741							
1020 915	213,0-226,0 208,0-218,0	1030-1040						
AC-Nr.	4 394 744							
1050 900	250,0 256,0	1060-1080			100	130,0-170,0	300	19,0-25,
AC-Nr.	4 394 745							•
950 750	208,0-214,0 196,0-202,0	990			100	130,0-170,0	300	21,0-27,
AC-Nr.	4 394 746							
875 600	161,0-165,0 140,0-144,0	890			100	130,0-170,	300	19,0-25,
AC-Nr.	4 394 771							
800 600	113,0-119,0 102,0-108,0	820			100	130,0-170,0	300	19,0-25,
AC-Nr.	4 394 773							
800 600	125,0-131,0 134,0-140,0	820			100	130,0-170,0	300	19,0-25,
AC-Nr.	4 394 775							
1025 900	192,0-198,0 180,0-186,0	1045			109	130,0-170,	300	19,0-25,
AC-Nr.	4 394 777							
1000 800 600	200,0-206,0 180,0-186,0 189,0-195,0	1020			100	130,0-170,	0 300	19,0-25,
AC-Nr.	4 394 779							
940	185,0-195,0	955-65	•		100	130,0-170,	0 300	19,0-25
AC-Nr.	4 394 781							
1025 900 700	230,0-236,0 207,0-213,0 209,0-215,0	1040	•		100	130,0-170,	0 300	19,0-25
AC-Nr.	4 394 783							
1000 800	227,0-233,0 197,0-203,0	1020			100	130,0-170,	0 300	19,0-25
AC-Nr.	4 394 785		•					
1000	235,0-241,0	1020			100	130,0-170,	0 300	19,0-25
700	263,0-269,0	. 320						

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C.	Settings	for Fuel Injection	n Pump with	Fitted Governor

Full-load of Control-ro Test oil ter		Breakaway		Fuel dein high idle t	rery characteristics (5e peed (80)	Starting Idle switchin	fuel delivery 6	Low idl	e speed 5
rev/min	cm³/1000 strokes	rev/min 3	•	rev/min	cm ³ /1000 strokes	rev/min 6	cm³/1000 strokes	rév/min 8	travel mm
•	12	ř – – –		7		ľ			
C-Nr.	4 394 787								
000 800 600	220,0-226,0 209,0-215,0 227,0-233,0	1020				100	130,0-170,0	300	19,0-25,
C-Nr.	4 394 789								
910	190,0	930				100	130,0-170,0	300	25,0
C-Nr.	4 394 791								
900 700	160,0-166,0 139,0-145,0	920				100	130,0-170,0	300	19,0-25,
C-Nr.	4 394 793								
600	124,0-130,0	620				100	130,0-170,0	300	19,0-25,
C-Nr.	4 394 795								
700 600	127,0-133,0 124,0-130,0	720				100	130,0-170,0	300	19,0-25,
C-Nr.	4 394 797								
800 600	139,0-145,0 124,0-130,0	820				100	130,0-170,0	300	19,0-25,
C-Nr.	4 394 799								
925 300 500	157,0-163,0 145,0-151,0 134,0-140,0	945				100	130,0-170,0	300	19,0-25,
J-Nr.	4 394 801								
1,000	180,0-186,0 154,0-160,0 142,0-148,0	1020				100	130,0-170,0	300	19,0-25,
IC-Nec.	4 394 803								
906 906	207,0-213,0 161,0-175,0 (47,0-153,0	1070				100	130,0-170,0	300	19,0-25,
C-Nr	4 394 805								
900 700	187,0-193,0 162,0-168,0	920				100	130,0-170,0	300	27,0-33,
C-Nr.	4 394 807								
900 700	200,0-206,0 184,0-190,0	920				100	130,0-170,0	300	27,0-33,
C-Nr.	4 394 809								
900 700	203,0-209,0 209,0-215,0	920				100	130,0-170,0	300	19,0-25,

Full-load delivery Control-rod stop		Breakaway 20		high ide speed		Starting I	uel delivery (6)	Low idle speed 5		
control to	np. 40°C (104°F) 2	intermediate ap			— (9)	switchin	g point		Control rod	
ev/miņ	cm ³ /1000 strokes	rev/min	(4)	rev/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	rev/min	mm	
	2	3		4	5	6	7	8	•	
C N.	4 394 811	•	,	•	•			•		
		770				100	130,0-170,0	300	10 0-25	
750 600	185,0-191,0 222,0-228,0	770				100	130,0-170,0	300	19,0-25	
C-Nr.	4 394 813									
800 600	210,0-218,0 223,0-229,0	820				100	130,0-170,0	300	19,0-25	
C-Nr.	4 394 815									
050	222,0-228,0	1070				100	130,0-170,0	300	19,0-25	
900 700	202,0-208,0 207,0-213,0									
C-Nr.	4 394 817									
000	240,0-246,0	1020				100	130,0-170,0	300	19,0-25	
800 600	224,0-230,0 237,0-243,0									
C-Nr.	4 394 819									
050	245,0-251,0	1070				100	130,0-170,0	300	19,0-25	
900 700	224,0-230,0 237,0-243,0									
C-Nr.	4 394 821									
000	217,0-223,0	1020				100	130,0-170,0	300	19,0-25	
800 600	197,0-203,0 219,0-225,0									
C-Nr.	4 394 823									
900	210,0-216,0	920				100	130,0-170,0	300	27,0-33	
700	212,0-218,0									
C-Nr.	4 394 825									
050	269,0-275,0	1070				100	130,0-170,0	300	19,0-25	
900 700	281,0-287,0 293,0-299,0									
	4 394 827									
	234,0-240,0	1070				100	130,0-170,0	300	19 0-25	
900	246,0-252,0	10/0				100	15030-17036	, 500	13,0-23	
700	268,0-274,0									
C-Nr.	4 394 829									
	262,0-268,0	1070				100	130,0-170,0	300	19,0-25	
900 700	279,0-285,0 289,0-295,0									
	4 394 831					• - •		_		
	241,0-247,0 265,0-271,0	1070				100	130,0-170,0	300	19,0-25	

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C.	Settings	for Fuel I	njectio	n Pump	with Fitted	Governor

-17-

C. S	ettings for Fu							Low idl	e speed	
Control-	delivery rod stop	Breakaway		Fuel delin	very characteristics (5)	1010	fuel delivery 6	ا ع		
	lemp. 40°C (104°F) (2)	intermediate ap	•••	rev/min	cm ³ /1000 strokes		cm ³ /1000 strokes	ray/min l	Control rod travel mm	
rev/min	cm ³ /1000 strokes	3		4	5	6	7	8	9	
		1		1		1	i	1 1		
AC-Nr.	4 394 833									
900 700	232,0-238,0 253,0-259,0	920				100	130,0-170,0	300 1	9,0-25,0	
AC-Nr.	4 394 835								•	
750 700	244,0-250,0 253,0-259,0	770				100	130,0-170,0	300 1	9,0-25,0	
AC-Nr.	4 394 837									
800 600	239,0-245,0 248,0-254,0	820				100	130,0-170,0	300 1	9,0-25,0	
AC-Nr.	4 394 839									
1000 800	212,0-218.0 230,0-236,0	1020				100	130,0-170,0	300 1	9,0-25,0	
AC-Nr.	4 394 841									
900 700	288,0-294,0 287,0-293,0	920				100	130,0-170,0	300 2	7,0-33,0	
AC-Nr.	4 394 843									
1000 800 600	255,0-261,0 272,0-278,0 270,0-276,0	1020				100	130,0-170,0	300 1	9,0-25,0	
AC-Nr.	4 394 845									
1050 900 700	239,0-245,0 233,0-239,0 273,0-279,0	1070				100	130,0-170,0	300 1	9,0-25,0	
AC-Nr.	4 394 847									
1000 800 600	215,0-221,0 197,0-203,0 220,0-226,0	1020				100	130,0-170,0	300 1	9,0-25,0	
AC-Nr.	4 394 849									
900 700	222,0-228,0 254,0-260,0	920				100	130,0-170,0	300 1	9,0-25,0	
AC-Nr.	4 394 851									
1050 750	257,0-263,0 272,0-278,0	1070				100	130,0-170,0	300 2	7,0-33,0	
AC-Nr.	4 394 853									
1050 900	295,0-303,0 309,0-315,0	1075				100	130,0-170,0	300 2	5 ,0	
AC-Nr.	4 394 857									
1050 900 700	262,0-268,0 267,0-273,0 267,0-273,0	1070	مدنود	-منورموم		100	130,0-170,0	300 19	9,0-25,0	
, 50	-0730 27030		Γρ	etail	I-ISO 4	112				

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C. Se	ttings for Fu	iel injectio	n Pur	p with Fitte	d Go				
Full-load Control-r Test oil ti		Breakaway (a	Fuel deli high ide	very characteristics (5e)	Starting Idle switching		Low idle speed 3 Control rod		
rev/min	cm ³ /1000 strokes	revimin (4	rev/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	rev/min	trave:	
 	2	3	- -	5	6	7	8	9	
AC-Nr.	4 394 861			•					
1050 900 700	296,0-302,0 301,0-307,0 309,0-315,0	1070			100	130,0-170,0	300 1	9,0-25,	
AC-Nr.	4 394 863								
050 900 700	253,0-256,0 252,0-258,0 269,0-275,0	1070			100	130,0-170,0	300 1	9,0-25,	
IC-Nr.	4 394 865								
900 700	208,0-214,0 230,0-236,0 260,0-266,0	1070		·	100	130,0-170,0	300 1	9,0-25,	
IC-Nr.	4 394 867								
900 700	181,0-187,0 172,0-178,0	920			100	130,0-170,0	300 1	9,0-25,	
C-Nr.	4 394 869								
800	176,0-182,0 162,0-168,0 177,0-183,0	945			100	130,0-170,0	300 1	9,0-25,	
C-Nr.	4 394 871								

100 130,0-170,0 300 19,0-25,0

100 130,0-170,0 300 27,0-33,0

100 130,0-170,0 300 27,0-33,0

100 130,0-170,0 300 19,0-25,0

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AC-Nr. 4 394 879 1050 211,0-220,0 975 1055-1075 237,5-247,0 100 130,0-170,0 19,0-25,0 700 258,5-269,5 600 255,5-266,0

Tilt stop part position to obtain quantity at 1050 PRM. Adjust stop part position to obtain mean curve above.

900

800

925

800 700

700

600

1050

900

700

173,0-179,0

160,0-166,0

237,0-243,0 251,0-257,0

269,0-275,0

218,0-224,0

240,0-246,0

213,0-219,0

212,0-218,0

240,0-246,0

AC-Nr. 4 394 873

AC-Nr. 4 394 875

AC-Nr. 4 394 877

920

945

720

1060-1080

				•	
-		A	-14-141	Manage and the	C-110-1
	ATTINGS	tor Hu	ei mertor	Pump with	Governor
V : T					

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Full-load Control-r	od stop	Breakaway 20		Fuel delivery characteristics (5a) high site speed (5b)		• •	Low idle speed 5	
	mp. 40°C (104°F) (2)	rev/min		cm ³ /1000 strokes	switchin	g point cm³/1000 strokes	r ai v/men	Control rod travel
ten/um	cm ³ /1000 strokes	rev/min 3	rev/min 4	5	6	7	8	9
-								
	4 394 881							
700 600	246,0 263,0	720			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 883							
1050	244,5-254,5	1060-1080			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 885							
600	258,0				100	130,0-170,0	300	27,0
AC-Nr.	4 394 891							
600	167,0-175,0	620			100	130,0-170,0	300	25,0
AC-Nr.	4 394 893			٠				
900	259,0-267,0	925			100	130,0-170,0	300	19,0-29,0
700	238,0-246,0							
	4 394 895							
1000 800	188,0-196,0 180,0-187,0	1025			100	130,0-170,0	300	25,0
AC-Nr.	4 394 897							
850 750	189,0-197,0 185,0-193,0	875			100	130,0-170,0	325	30,0
AC-Nr	4 394 899							
900	175,0	925			100	130,0-170,0	300	19.0-25.0
700	158,0							,,.
AC-Nr.	4 394 905							
1000 700	239,0-247,0 229,0-235,0	1025			100	130,0-170,0	300	25,0
	4 394 907							
	161.0	925			100	130,0-170,0	300	19.0-25.0
800	151,0							
Beginn 0,90 b	ing of movemen ar pressure, g	t: 0,40 - 0,4 ap should be	5 bar "020".	at 750 PRM a	nd			
AC-Nr.	4 394 909						`	
1050	202,0-210,5	1060-1080			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 911			•				
1000	230,5-239,5	1010-1030			100	130,0-170,0	300 1	19,0-25,0
AC-Nr.	4 394 915							
1000	203,0-211,5	1010-1030			100	130,0-170,0	300 1	19,0-25,0

C. Settings for Fuel Injection Pump with Fitted Governor

Full-load d Control-ro Test oil ten	ri silon	intermediate speed	high idle s		Starting idle switchin		Low idl	e speed 5
rev/min	cm ³ /1000 strokes	rev/min , 4a	rev/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	rev/min	travel mm
1	2	3	4	5	6	7	8	9

-20-

AC-Nr. 4 394 917

1050 260,5-271,0 1060-1080

100 130,0-170,0 300 19,0-25,0

Beginning of movement: 0,40 - 0,45 bar at 750 PRM and 0,90 bar pressure, gap should be "020".

AC-Nr. 4 394 919

1050 215,5-261,5

1060-1080

100 130,0-170,0 300 19,0-25,0

AC-Nr. 4 394 921

1050 260,5-271,0

1060-1080 900

267,0-278,0

100 130,0-170,0 300 19,0-25,0

700 267,0-278,0

Tilt stop part position to obtain quantity at 1050 PRM. Adjust stop part position to obtain mean curve above. Beginning of movement: 0,40 - 0,45 bar at 750 PRM and 0,90 bar pressure, gap should be "020".

AC-Nr. 4 394 925

1050 244,0

1070

100 130,0-170,0 300 19,0-25,0

900 234,0

AC-Nr. 4 394 997

900 173,0-179,0 800 160,0-166,0 920

100 130,0-170,0 300 19,0-25,0

Festoil-ISO 4113

PE 6 P 120 A 420 LS 152 0 401 846 239

1 - 5 - 3 - 6 - 2 - 4

RQV 300...875 PA 112 KR

companAllis-Chalmers engine: 16000-25000

Values only apply to test nozzle-and-holder assembly 0 681 443 022 and fuel-injection test tubing 9 681 230 703.

All test specifications are valid for Bosch Fuel Injection Pump Tast Benches and Testers

A. Fuel Injection Pump Settings

Port closing at prestroke 2.8-2.9(2.75-2.95)mm (from BDC)

Rotational speed rev/min	Control rod traval mm 2	Fuel delivery cm ³ /100 strokes 3	Difference cm³/ 100 strokes 4	Control rod travel mm 2	Fuel delivery cm ³ /100 strokes 3	Spring pre-tensioning (torque-control valve) mm 6
1000	12	26,4 - 27,1			1,0	
200	6	4,2 - 5,2				

Adjust the fuel delivery from each outlet according to the values in [

B. Governor Settings

Upper rated	speed			Intermediate	rated sp	ed	Lower rated	speed		Slidina s	leeve travei
Degree of deflection	rev/min Control	Control rod travel	(b)	Degree of deflection		Control rod travel	Degree of deflection		Control rod travel		0
of control	rod travel	mm rev/min 3	3	of control lever	rev/min	mm (4)	of control lever 7	rev/min 8	mm 3	rev/min 10	ጠጠ 11
66°	875 900 980 1060	15,0-17, 12,0-15, 3,2- 8, 0	4				10°	120 200 350 550	6,3-8,0 4,9-7,1 1,7-3,1 0	0-160 350 700 980 - 1050	Start 2,3-2,8 5,4-5,9 end

Torque control travel s =

C. Settings for Fuel Injection Pump with Fitted Governor

Full-load de Control-roo Test oil ten		Rotational-speed 20 limitation intermediate speed	Fuel delivingh idle s	rery characteristics (Sa)	Starting Idle switchin		Torque- travel	Control rod
rev/min	cm³/1000 strokes	rev/min 40	rev/min	cm ³ /1000 strokes	เลง/เมเก	cm³/t000 strokes	rev/min	travel mm
1	2	3	4	5	6	7	8	9

Checking values in brackets

* 1 mm less control rod travel than col. 2

C.	Settings	for Fue	injection Pur	mp with Fitted	Governor
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Contro	ad delivery irrod stop		Full toe Control	d delivery rod stop	idle	fuel delivery 6	Low id	ile speed 5
rev/mi	i temp. 40°C (104°F) (2) n cm³/1000 strokes	rev/min	rev/min	temp. 40°C (104°F) cm³/1000 strokes	7	ng point cm³/1000 strokes	reiv/ma	Control rod travel
		3	+	2	6	7	8	•
AC-Nr	. 4 320 754							
1025	91,0-93,0	1040	700	99,0-103,0	100	90,0-130,0	300	19,0-25,0
AC-Nr.	. 4 320 793							
1000	122,0-124,0	1020	700	126,0-130,0	100	90,0-130,0	300	19,0-25,0
AC-Nr.	. 4 320 815							
900	100,0-106,0	910-920	700 600	101,0-107,0 111,0-117,0	100	90,0-130,0	300	19,0-25,0
AC-Nr.	4 320 816			-				
900	97,0-103,0	910-920	800	98,0-104,0	100	90,0-130,0	300	19.0-25.0
AC-Nr.	4 320 817					00,0 100,0		13,0 23,0
1100	139,0-143,0	1120	800	149,0-154,0	100	90,0-130,0	375	0 A-10 A
			600	153,0-161,0	100	50,0 150,0	373	3,0-13,0
AC-Nr.	4 320 829							
1100	139,0-143,0	1120	800 600	149,0-154,0 153,0-161,0	100	90,0-130,0	375	9,0-19,0
AC-Nr.	4 320 933							
900	102,0-110,0	1040	800	107,0-116,0	100	90,0-130,0	300	25,0
AC-Nr.	4 320 939							,
900	98,5 + 3	1040	700	107,5 + 4	100	90,0-130,0	300	25,0
AC-Nr.	4 320 940			<u> </u>				20,0
900	78,0-86,0	1040	70û	100,0-109,0	100	90,0-130,0	300	25,0
AC-Nr	4 320 941			,	,,,,	30,0 ,30,0	500	23,0
1025	91,0- 93,0	1040	700	99,0-103,0	10C	90,0-130,0	200 4	10 0-25 0
	4 320 942		, 00	33,0 100,0	100	30,0-130,0	300 1	13,0-25,0
1000	122,0-124,0	1020	700	126,0-130,0	100	00 0 120 0	200 4	
		1020	700	120,0-130,0	100	90,0-130,0	300 1	9,0-25,0
900	4 320 980	1120	900		400			
	108,0-116,0	1120	800	-	100	90,0-130,0	375	9,0-19,0
	4 320 981	4000	000					
900	111,0-119,0	1020	800	112,0-118,0	100	90,0-130,0	300	25,0
	4 321 016							
750	95,0-101,0	1020	750	95,0-101,0	100	90,0-130,0	300	25,0
	4 321 064							
1000	112,0	1030	800	112,5	100	90,0-130,0	300	25,0

Full-load (od stop		(20) Full-load Control-	od stop	Starting die switching	tuel delivery 6	LOW 101	e speed 5
•	mp. 40°C (104°F) (2)	1		emp. 40°C (104°F) cm ³ /1000 strokes	1	cm ³ /1000 strokes	rev/min	Control rod travel mm
rev/min 1	cm ³ /1000 strokes	rev/min 3	rev/min	2	6	7	8	9
							1	- I
\C-Nr.	4 359 816							
900	100,0-106,0	910-920	700 600	101,0-107,0 111,0-117,0	100	90,0-130,0	300	19,0-25
C-Nr.	4 359 826							
900	97,0-103,0	910-920	800	98,0-104,0	100	90,0-130,0	300	19,0-25
\C-Nr.	4 359 828							
100	139,0-143,0	1120	800 600	149,0-154,0 153,0-161,0	100	90,0-130,0	375	9,0-19
AC-Nr.	4 359 830							
1025	91,0-93,0	1040	700	99,0-103,0	100	90,0-130,0	300	19,0-25
AC-Nr.	4 359 832							
1000	122,0-124,0	1020	700	126,0-130,0	100	90,0-130,0	300	19,0-25
NC-Nr.	4 392 693							
1050	205,0-215,0	1065-80	900	167,0-177,0	100	130,0-170,0	300	19,0-25
NC-Nr.	4 392 695							
900	149,0-155,0	920	-	-	-	-	300	19,0-25
NC-Nr.	4 392 697							
750	185,0-191,0	770	600	222,0-228,0	100	130,0-170,0	300	19,0-25
NC-Nr.	4 392 699						•	
800	210,0-218,0	£2 0	600	223,0-229,0	100	130,0-170,0	300	19,0-25
NC-Nr.	4 392 701							
900	203,0-209,0	920	700	209,0-215,0	100	130,0-170,0	300	19,0-25
NC-Nr.	4 392 703							
050	220,0-230,0	1060-70	900 700	200,0-210,0 205,0-215,0		130,0-170,0	300	19,0-25
	4 200 707		, , ,					
	4 392 707	1060-80	900	222,0-232,0	100	130,0-170,0	300	19 0-05
1050	243,0-253,0	1000-00	700	235,0-245,0		130,0-170,0	, 200	13,0~43
\C-Nr.	4 392 709							
1000	217,0-223,0	1020	800	197,0-203,0	100	130,0-170,0	300	19,0-25
			600	219,0-225,0				
NC-Nr.	4 392 711							
600	231,0-237,0	620	-	-	-	-	300	19,0-25

Control-	delivery rod stop emp. 40°C (104°F) (2)	Breakaway	(20) Full-toad Control-r	delivery od stop emp. 40°C (104°F)	Starting lidle switching	fuel delivery 6	Low 1d?	e speed 5
revimin	cm³/1000 strokes		4 rev/min	cm ² /1600 strokes		cm¥1000 strokes	rev/min	Control rod travel
1	2	3	-	2	6	7	8	9
ı	•	•	•		1	•		'
AC-Nr.	4 392 715							
1050	187,0-193,0	1070	900	174,0-180,0	100	130,0-170,0	300	19,0-25,
			700	175,0-181,0				
AC-Nr.	4 392 717							
1050	224,0-230,0	1070	800	185,0-191,0	100	130,0-170,0	300	19,0-25,
AC-Nr.	4 392 719							
1050	200,0-206,0	1070	900	190,0-196,0	100	130,0-170,0	300	19.0-25
1030	200,0 200,0	.070	700	214,0-220,0	100	100,0 170,0	300	13,0-23,
AC-Nr.	4 392 721							
1050	242,0-248,0	1070	900	220,0-226,0	100	130,0-170,0	300	19.0-25.
1050	212,0 210,0		700	230,0-236,0		,.	000	13,0 23,
AC-Nr.	4 392 723							
750	244,0-250,0	770	700	253,0-259,0	100	130,0-170,0	300	19.0-25.
		***		200,0 200,0	,,,,	,		,,
AC-Nr.		020	500	240 6 254 0	400	420 0 470 0	200	10 0 05
800	239,0-245,0	820	600	248,0-254,0	100	130,0-170,0	300	19,0-25,
AC-Nr.	4 392 727							
900	232,0-238,0	920	700	253,0-259,0	100	130,0-170,0	300	19,0-25,
AC-Nr.	4 392 729							
1000	212,0-218,0	1020	800	230,0-236,0	100	130,0-170,0	300	19,0-25,
AC-N×	4 392 731							
900	288,0-294,0	920	700	287,0-293,0	100	130,0-170,0	200 1	27 0_22 (
		320	700	207,0-293,0	100	130,0-170,0	300 4	27,0-33,0
	4 392 735	-						
1050	239,0-245,0	1070	900 700	233,0-239,0 273,0-279,0	100	130,0-170,0	300	19,0-25,0
			, 00	270,0 273,0				
	4 392 737							
1000	215,0-221,0	1020	800 600	197,0-203,0 220,0-226,0	100	130,0-170,0	300	19,0-25,
	4 392 739	4.050	000	105 0 004 0		400 0 470 0	000	
1050	207,0-213,0	1050	900 700	195,0-201,0 225,0-231,0	100	130,0-170,0	300 1	19,0-25,
10 "	4 200 744							
	4 392 741	4070	000	202 0 202 0	a 0.0	120 0 170 0		
1050	213,0-219,0	1070	900 700	202,0-208,0 230,0-236,0	100	130,0-170,0	•	-
RO No	4 200 740			. 3. 2				
	4 392 743	4070	000	240 0 046 0	400	120 0 470 0	200	0 6 65
1050	220,0-226,0	1070	900 700	210,0-216,0 243,0-249,0	100	130,0-170,0	300 1	9,0-25,0

Control	delivery rod stop	Breakaway	20 Full	toad delivery (2)	Starting fuel delivery 6		Low idle speed 5	
•	temp. 40°C (104°F) (2)	intermediate spe		t oil temp. 40°C (104°F)	awitchir			Control rod
rev/min	cm ³ /1000 strokes	rev/min 3	(4) rev/	min cm³/1000 strokes	rev/min	cm³/1000 strokes 7	rev/min 8	9
-			-		-	<u> </u>	-	-
AC-Nr.	4 392 747							
1050	227,0-233,0	1070	900	208,0-214,0	100	130,0-170,0	300	19.0-25.0
.000	227,50 200,0		700			,		,,.
AC-Nr.	4 392 749							
1050	230,0-234,0	1070	-	•	100	130,0-170,0	300	19,0-25,0
AC-No	4 392 750							•
1050	230,0-234,0	1070	_	-	100	130,0-170,0	300	10 0-25 (
		1070			100	130,0-170,0	300	19,0-29,0
	4 392 768	000	600	400 0 440 0	400			
800	123,0-133,0	820	600	132,0-142,0	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 392 775/776							
875	162,0-164,0	890	600	140,0-144,0	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 392 777							
950	205,0-207,0	970	700	195,0-199,0	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 392 778							
950	208,0-214,0	990	750	196,0-202,0	100	130,0-170,0	300	21.6-27.0
		-2-5		,		,		,0,0
1025	3 392 779 190,0-200,0	1030-40	1000	191,0-201,0	100	120 0-170 0	200	10 0 25 0
1025	190,0-200,0	1030-40	900		100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 392 781							
1025	228,0-238,0	1050-60	900	205,0-215,0	100	130,0-170,0	300	19.0-25.0
			700			100,0	000	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
AC-Nr.	4 392 953							
940	185,0-195,0	955-65	-	-	100	130,0-170,0	300	19,0-25,0
	4 393 095							•
1050	211,0-221,0	1060-80	900	210,0-220,0	100	130,0-170,0	300 -	10 0-25 0
1030	211,0 221,0	1000 00	700	238,0-248,0	100	130,0 170,0	300	19,0-29,0
AC-Nr.	4 393 307							
900	210,0-216,0	920	700	212,0-218,0	100	130,0-170,0	300 2	27.0-33.0
A.C. N :=			•					. ,
1050	4 393 431 208,0-214,0	1070	900	230,0-235,0	100	130,0-170,0	300 ·	10 N_2E N
1030	200,07614,0	10/0	700	260,0-266,0	100	130,0-170,0	300	17,0~25,0
AC-Nr.	4 393 821							
1050	242,0-248,0	1070	900	220,0-226,0	100	130,0-170,0	300 1	9. 0- 25.0
			700	230,0-236,0		. + 0 , 0 1 / 0 , 0	-50	. J 50 - LJ 50
				•				

G1

C. Settin	igs for	Fuel In	jection	Pump with	Fitted	Governor

AC-Nr. 4 393 829 1050 230,0-234,0 1070 900 202,0-208,0 100 130,0-170,0 3 AC-Nr. 4 393 833 1050 264,0 1060-1080 900 280,5 100 130,0-170,0 3 AC-Nr. 4 393 837 1050 220,0-226,0 1070 900 210,0-216,0 100 130,0-170,0 3 AC-Nr. 4 393 837 1050 264,0 1070 900 210,0-236,0 100 130,0-170,0 3 AC-Nr. 4 393 831 1050 213,0-219,0 1070 900 202,0-208,0 100 130,0-170,0 3 AC-Nr. 4 393 831 1050 264,0 1060-1080 900 280,5 100 130,0-170,0 3 AC-Nr. 4 393 835 1050 220,0-226,0 1070 900 210,0-216,0 100 130,0-170,0 3 AC-Nr. 4 393 837 1050 27,0-233,0 1070 900 210,0-216,0 100 130,0-170,0 3 AC-Nr. 4 393 837 1050 227,0-233,0 1070 900 202,0-208,0 100 130,0-170,0 3 AC-Nr. 4 393 837 1050 27,0-233,0 1070 900 210,0-216,0 100 130,0-170,0 3 AC-Nr. 4 393 890 950 208,0-214,0 990 750 196,0-202,0 100 130,0-170,0 3 AC-Nr. 4 393 891 955 208,0 965-975 895 203,0	300 19,0-25 300 19,0-25 300 19,0-25
AC-Nr. 4 393 823 1050 187,0-193,0 1070 900 174,0-180,0 100 130,0-170,0 3 AC-Nr. 4 393 825 1050 224,0-230,0 1070 800 185,0-191,0 100 130,0-170,0 3 AC-Nr. 4 393 827 1050 200,0-206,0 1070 900 190,0-196,0 100 130,0-170,0 3 AC-Nr. 4 393 829 1050 230,0-234,0 1070 - 100 130,0-170,0 3 AC-Nr. 4 393 831 1050 213,0-219,0 1070 900 202,0-208,0 100 130,0-170,0 - 700 230,0-236,0 100 130,0-170,0 3 AC-Nr. 4 393 833 1050 264,0 1060-1080 900 280,5 100 130,0-170,0 3 AC-Nr. 4 393 835 1050 220,0-226,0 1070 900 210,0-216,0 100 130,0-170,0 3 AC-Nr. 4 393 837 1050 227,0-233,0 1070 900 208,0-214,0 100 130,0-170,0 3 AC-Nr. 4 393 890 950 208,0-214,0 990 750 196,0-202,0 100 130,0-170,0 3 AC-Nr. 4 393 891	300 19,0-25 300 19,0-25 300 19,0-25
1050 187,0-193,0 1070 900 174,0-180,0 100 130,0-170,0 3 AC-Nr. 4 393 825 1050 224,0-230,0 1070 800 185,0-191,0 100 130,0-170,0 3 AC-Nr. 4 393 827 1050 200,0-206,0 1070 900 190,0-196,0 100 130,0-170,0 3 AC-Nr. 4 393 829 1050 230,0-234,0 1070 - 100 130,0-170,0 3 AC-Nr. 4 393 831 1050 213,0-219,0 1070 900 202,0-208,0 100 130,0-170,0 - 230,0-236,0 100 130,0-170,0 3 AC-Nr. 4 393 833 1050 264,0 1060-1080 900 280,5 100 130,0-170,0 3 AC-Nr. 4 393 835 1050 220,0-226,0 1070 900 210,0-216,0 100 130,0-170,0 3 AC-Nr. 4 393 837 1050 227,0-233,0 1070 900 208,0-214,0 100 130,0-170,0 3 AC-Nr. 4 393 890 950 208,0-214,0 990 750 196,0-202,0 100 130,0-170,0 30 AC-Nr. 4 393 891	300 19,0-25 300 19,0-25 300 19,0-25
1050 187,0-193,0 1070 900 174,0-180,0 100 130,0-170,0 3 AC-Nr. 4 393 825 1050 224,0-230,0 1070 800 185,0-191,0 100 130,0-170,0 3 AC-Nr. 4 393 827 1050 200,0-206,0 1070 900 190,0-196,0 100 130,0-170,0 3 AC-Nr. 4 393 829 1050 230,0-234,0 1070 - 100 130,0-170,0 3 AC-Nr. 4 393 831 1050 213,0-219,0 1070 900 202,0-208,0 100 130,0-170,0 - 230,0-236,0 100 130,0-170,0 3 AC-Nr. 4 393 833 1050 264,0 1060-1080 900 280,5 100 130,0-170,0 3 AC-Nr. 4 393 835 1050 220,0-226,0 1070 900 210,0-216,0 100 130,0-170,0 3 AC-Nr. 4 393 837 1050 227,0-233,0 1070 900 208,0-214,0 100 130,0-170,0 3 AC-Nr. 4 393 890 950 208,0-214,0 990 750 196,0-202,0 100 130,0-170,0 30 AC-Nr. 4 393 891	300 19,0-25 300 19,0-25 300 19,0-25
AC-Nr. 4 393 825 1050 224,0-230,0 1070 800 185,0-191,0 100 130,0-170,0 3 AC-Nr. 4 393 827 1050 200,0-206,0 1070 900 190,0-196,0 100 130,0-170,0 3 AC-Nr. 4 393 829 1050 230,0-234,0 1070 - 100 130,0-170,0 3 AC-Nr. 4 393 831 1050 213,0-219,0 1070 900 202,0-208,0 100 130,0-170,0 - 700 230,0-236,0 AC-Nr. 4 393 833 1050 264,0 1060-1080 900 280,5 100 130,0-170,0 3 AC-Nr. 4 393 835 1050 220,0-226,0 1070 900 210,0-216,0 100 130,0-170,0 3 AC-Nr. 4 393 837 1050 227,0-233,0 1070 900 208,0-214,0 100 130,0-170,0 3 AC-Nr. 4 393 890 950 208,0-214,0 990 750 196,0-202,0 100 130,0-170,0 30 AC-Nr. 4 393 891	300 19,0-25 300 19,0-25 300 19,0-25
1050 224,0-230,0 1070 800 185,0-191,0 100 130,0-170,0 3 AC-Nr. 4 393 827 1050 200,0-206,0 1070 900 190,0-196,0 100 130,0-170,0 3 AC-Nr. 4 393 829 1050 230,0-234,0 1070 - 100 130,0-170,0 3 AC-Nr. 4 393 831 1050 213,0-219,0 1070 900 202,0-208,0 100 130,0-170,0 - 230,0-236,0 100 130,0-170,0 - 230,0-236,0 100 130,0-170,0 3 AC-Nr. 4 393 833 1050 264,0 1060-1080 900 280,5 100 130,0-170,0 3 AC-Nr. 4 393 835 1050 220,0-226,0 1070 900 210,0-216,0 100 130,0-170,0 3 AC-Nr. 4 393 837 1050 227,0-233,0 1070 900 208,0-214,0 100 130,0-170,0 3 AC-Nr. 4 393 890 950 208,0-214,0 990 750 196,0-202,0 100 130,0-170,0 30 AC-Nr. 4 393 891	800 19,0-25 800 19,0-25
AC-Nr. 4 393 827 1050 200,0-206,0 1070 900 190,0-196,0 100 130,0-170,0 3 AC-Nr. 4 393 829 1050 230,0-234,0 1070 - 100 130,0-170,0 3 AC-Nr. 4 393 831 1050 213,0-219,0 1070 900 202,0-208,0 100 130,0-170,0 - 700 230,0-236,0 AC-Nr. 4 393 833 1050 264,0 1060-1080 900 280,5 100 130,0-170,0 3 AC-Nr. 4 393 835 1050 220,0-226,0 1070 900 210,0-216,0 100 130,0-170,0 3 AC-Nr. 4 393 837 1050 227,0-233,0 1070 900 243,0-249,0 AC-Nr. 4 393 890 950 208,0-214,0 990 750 196,0-202,0 100 130,0-170,0 30 AC-Nr. 4 393 891	800 19,0-25 800 19,0-25
1050 200,0-206,0 1070 900 190,0-196,0 100 130,0-170,0 3 AC-Nr. 4 393 829 1050 230,0-234,0 1070 - 100 130,0-170,0 3 AC-Nr. 4 393 831 1050 213,0-219,0 1070 900 202,0-208,0 100 130,0-170,0 - AC-Nr. 4 393 833 1050 264,0 1060-1080 900 280,5 100 130,0-170,0 3 AC-Nr. 4 393 835 1050 220,0-226,0 1070 900 210,0-216,0 100 130,0-170,0 3 AC-Nr. 4 393 837 1050 227,0-233,0 1070 900 208,0-214,0 100 130,0-170,0 3 AC-Nr. 4 393 890 950 208,0-214,0 990 750 196,0-202,0 100 130,0-170,0 30 AC-Nr. 4 393 891	300 19,0- 25,
AC-Nr. 4 393 829 1050 230,0-234,0 1070 100 130,0-170,0 3 AC-Nr. 4 393 831 1050 213,0-219,0 1070 900 202,0-208,0 100 130,0-170,0 - 230,0-236,0 100 130,0-170,0 - 230,0-236,0 100 130,0-170,0 3 AC-Nr. 4 393 833 1050 264,0 1060-1080 900 280,5 100 130,0-170,0 3 AC-Nr. 4 393 835 1050 220,0-226,0 1070 900 210,0-216,0 100 130,0-170,0 3 AC-Nr. 4 393 837 1050 227,0-233,0 1070 900 208,0-214,0 100 130,0-170,0 3 AC-Nr. 4 393 890 950 208,0-214,0 990 750 196,0-202,0 100 130,0-170,0 30 AC-Nr. 4 393 891	300 19,0- 25,
1050 230,0-234,0 1070 - 100 130,0-170,0 3 AC-Nr. 4 393 831 1050 213,0-219,0 1070 900 202,0-208,0 100 130,0-170,0 - 230,0-236,0 100 130,0-170,0 - 230,0-236,0 100 130,0-170,0 3 AC-Nr. 4 393 833 1050 264,0 1060-1080 900 280,5 100 130,0-170,0 3 AC-Nr. 4 393 835 1050 220,0-226,0 1070 900 210,0-216,0 100 130,0-170,0 3 AC-Nr. 4 393 837 1050 227,0-233,0 1070 900 208,0-214,0 100 130,0-170,0 3 AC-Nr. 4 393 890 950 208,0-214,0 990 750 196,0-202,0 100 130,0-170,0 30 AC-Nr. 4 393 891	
AC-Nr. 4 393 831 1050 213,0-219,0 1070 900 202,0-208,0 100 130,0-170,0 - AC-Nr. 4 393 833 1050 264,0 1060-1080 900 280,5 100 130,0-170,0 3 AC-Nr. 4 393 835 1050 220,0-226,0 1070 900 210,0-216,0 100 130,0-170,0 3 AC-Nr. 4 393 837 1050 227,0-233,0 1070 906 208,0-214,0 100 130,0-170,0 3 AC-Nr. 4 393 890 950 208,0-214,0 990 750 196,0-202,0 100 130,0-170,0 30 AC-Nr. 4 393 891	
1050 213,0-219,0 1070 900 202,0-208,0 100 130,0-170,0 - AC-Nr. 4 393 833 1050 264,0 1060-1080 900 280,5 100 130,0-170,0 3 AC-Nr. 4 393 835 1050 220,0-226,0 1070 900 210,0-216,0 100 130,0-170,0 3 AC-Nr. 4 393 837 1050 227,0-233,0 1070 900 208,0-214,0 100 130,0-170,0 3 AC-Nr. 4 393 890 950 208,0-214,0 990 750 196,0-202,0 100 130,0-170,0 30 AC-Nr. 4 393 891	<u>-</u>
1050 213,0-219,0 1070 900 202,0-208,0 100 130,0-170,0 - AC-Nr. 4 393 833 1050 264,0 1060-1080 900 280,5 100 130,0-170,0 3 AC-Nr. 4 393 835 1050 220,0-226,0 1070 900 210,0-216,0 100 130,0-170,0 3 AC-Nr. 4 393 837 1050 227,0-233,0 1070 900 208,0-214,0 100 130,0-170,0 3 AC-Nr. 4 393 890 950 208,0-214,0 990 750 196,0-202,0 100 130,0-170,0 30 AC-Nr. 4 393 891	_
1050 264,0 1060-1080 900 280,5 100 130,0-170,0 3 AC-Nr. 4 393 835 1050 220,0-226,0 1070 900 210,0-216,0 100 130,0-170,0 3 AC-Nr. 4 393 837 1050 227,0-233,0 1070 900 208,0-214,0 100 130,0-170,0 3 AC-Nr. 4 393 890 950 208,0-214,0 990 750 196,0-202,0 100 130,0-170,0 30 AC-Nr. 4 393 891	
1050 264,0 1060-1080 900 280,5 100 130,0-170,0 3 AC-Nr. 4 393 835 1050 220,0-226,0 1070 900 210,0-216,0 100 130,0-170,0 3 AC-Nr. 4 393 837 1050 227,0-233,0 1070 900 208,0-214,0 100 130,0-170,0 3 AC-Nr. 4 393 890 950 208,0-214,0 990 750 196,0-202,0 100 130,0-170,0 30 AC-Nr. 4 393 891	
1050 220,0-226,0 1070 900 210,0-216,0 100 130,0-170,0 3 AC-Nr. 4 393 837 1050 227,0-233,0 1070 900 208,0-214,0 100 130,0-170,0 3 700 247,0-253,0 100 130,0-170,0 3 AC-Nr. 4 393 890 950 208,0-214,0 990 750 196,0-202,0 100 130,0-170,0 3 AC-Nr. 4 393 891	00 19,0-25,
700 243,0-249,0 AC-Nr. 4 393 837 1050 227,0-233,0 1070 900 208,0-214,0 100 130,0-170,0 30 AC-Nr. 4 393 890 950 208,0-214,0 990 750 196,0-202,0 100 130,0-170,0 30 AC-Nr. 4 393 891	
1050 227,0-233,0 1070 900 208,0-214,0 100 130,0-170,0 30 700 247,0-253,0 100 130,0-170,0 30 AC-Nr. 4 393 890 750 196,0-202,0 100 130,0-170,0 30 AC-Nr. 4 393 891	00 19,0,25,
700 247,0-253,0 AC-Nr. 4 393 890 950 208,0-214,0 990 750 196,0-202,0 100 130,0-170,0 30 AC-Nr. 4 393 891	
950 208,0-214,0 990 750 196,0-202,0 100 130,0-170,0 30 AC-Nr. 4 393 891	00 19,0-25,
AC-Nr. 4 393 891	
	00 21,0-27,
200 200,0 200 200 200,0 = = = = =	
	-
AC-Nr. 4 393 961 900 181,0-187,0 920 700 172,0-178,0 100 130,0-170,0 30	00 19,0-25.
NC-Nr. 4 394 001	•
700 218,0-224,0 720 600 240,0-246,0 100 130,0-170,0 30	00 27,0-33,
C-Nr. 4 394 017	
950 208,0-214,0 990 750 196,0-202,0 100 130,0-170,6 30	00 21,0-27,
C-Nr. 4 394 020	
700 249,0-257,0 725 600 258,0-264,0 100 130,0-170,0 30	

G2

Co	Full-load delivery Control-rod stop Test oil temp. 40°C (104°F)		Breakaway (~	Full-load of Control-ro Test oil ter		Idle	tual delivery (8)	Low id	Control rod
	//min	cm ³ /1000 strokes	`	\supset	rev/min	cm ² /1000 strokes		cm3/1000 strokes	rdv/mii	travel
-		2	3	+	<u>'</u>	2	6	7	8	
		. 4 394 062								
80	00	113,0-119,0	820	6	00	102,0-108,0	100	130,0-170,0	300	19,0-25,0
AC-	Nr.	4 394 064								
87	'5	161,0-165,0	890	6	00	140,0-144,0	100	130,0-170,0	300	19.0-25.0
AC-	Nr.	4 394 066								
80		125,0-131,0	820	6	00	134,0-140,0	100	120 0-170-0	200	40 0 05 0
		•	020	•	00	10430-14030	100	130,0-170-0	300	19,0-25,0
		4 394 068		_						
102	5	192,0-198,0	1045	9	00	180,0-186,0	100	130,0-170,0	300	19,0-25,0
AC-	Nr.	4 394 070								
100	0	200,0-206,0	1020		00	180,0-186,0	100	130,0-170,0	300	19,0-25,0
				0	00	189,0-195,0				
AC-	Nr.	4 394 072								
940	0	185,0-195,0	955-65			-	100	130,0-170,0	300	19,0-25,0
AC-I	٧r.	4 394 074								
1025	5	230,0-236,0	1040	90	00	207,0-213,0	100	130,0-170,0	300	19 0-25 0
				70		209,0-215,0		,.	500	1950-2950
AC-N	۱r.	4 394 076								
1000)	227,0-233,0	1020	80	00	197,0-203,0	100	130,0-170,0	300	19.0-25.0
AC-N	ir.	4 394 078								,,.
1000		235,0-241,0	1020	70	n :	263,0-269,0	100	120 0 170 0		
			1020	,,	,	203,0-203,0	100	130,0-170,0	300	19,0-25,0
AC-N										
1000		220,0-226,0	1020	80 60		209,0-215,0 227,0-233,0	100	130,0-170,0	300 1	9,0,25,0
				V		227,0-233,0				
		4 394 082								
910		190,0	930	-		-	100.	130,0-170,0	300 2	25,0
AC-N	r.	4 394 084								
900		160,0-166,0	920	70	0 1	39,0-145,0	100	130,0-170,0 3	300 1	9,0-25.0
AC-N	r.	4 39\$ 086								
600		124,0-130,0	620	-		_	100	130,0-170,0 3	200 4	0.0.25.0
AC-N		4 394 088						100,0 170,0 3	,00 1	3,0-25,0
700		• •	700	C 0.1		04 0 400 0				
		127,0-133,0	720	601	u 1	24,0-130,0	100	130,0-170,0 3	00 1	9,0-25,0
		4 394 090								
800	•	139,0-145,0	820	600) 1	24,0-130,0	100	130,0-170,0 3	00 1	9,0-25,0
										-

		* * ***	**		_
	Cattinge	for Fuel	Injection Pum	n with Fitted	Governor
V.	Jarmiño	101 LAGI	ngochon Fun	h mini i icco	401011101

-8-

Control	d delivery rod stop temp. 40°C (104°F) (2	Breakaway	Breakaway (2b) Full-food delivery Control-rod stop intermediate speed Test oil temp. 40°C (104°F			fuel delivery 6	Low idle speed 5		
rev/min	1 30000	rev/min	4 rev/min		rev/mir		rev/min	travel mm	
1	2	3	1	2	6	7	8	0	
					1	'	ı		
AC-Nr.	. 4 394 092								
925	157,0-163,0	945	800 600	145,0-151,0 134,0-140,0	100	130,0-170,0	300 1	9,0-25,	
AC-Nr.	4 394 094								
1000	180,0-186,0	1020	800 700	154,0-160,0 142,0-148,0	100	130,0-170,0	300 1	9,0-25,	
AC-Nr.	4 394 096								
1050	207,0-213,0	1070	900 800	161,0-175,0 147,0-153,0	100	130,0-170,0	300 1	9,0-25,	
AC-Nr.	4 394 098								
900	187,0-193,0	920	700	162,0-168,0	100	130,0-170,0	300 2	7,0-33,	
AC-Nr.	4 394 100								
900	200,0-206,0	920	700	184,0-190,0	100	130,0-170,0	300 2	7,0-33,	
AC-Nr.	4 394 102								
900	203,0-209,0	920	700	209,0-215,0	100	130,0-170,0	300 1	9,0-25,	
lC−Nr.	4 394 104								
750	185,0-191,0	770	600	222,0-228,0	100	130,0-170,0	300 1	9,0-25,	
C-Nr.	4 394 106								
800	210,0-218,0	820	600	223,0-229,0	100	130,0-170,0	300 1	9,0-25,	
C-Nr.	4 394 108								
050	222,0-228,0	1070	900 700	202,0-208,0 207,0-213,0	100	130,0-170,0	300 1	9,0-25,	
C_N-	4 394 110		, , ,	20730 21030					
000	240,0-246,0	1020	800	224,0-230,0	100	130,0-170,0	200 10	0 0-25 (
	210,0 210,0	1020	600	237,0-243,0	100	130,0-170,0	300 1	3,0-25,	
C-Nr.	4 394 112	,							
050	245,0-251,0	1070	900	224,0-230,0	100	130,0-170,0	300 1	9,0-25,0	
		•	700	237,0-243,0					
	4 394 114	4000	606	407 4 407 5	4.5.5	400 0 1=0		_	
000	217,0-223,0	1020	800 600	197,0-203,0 219,0-225,0	100	130,0-170,0	300 19	9,0-25,0	
C-Nr.	4 394 116								
	210,0-216,0	920	700	212,0-218,0	100	130,0-170,0	300 27	7.0-33.6	
	4 394 118				-	<u> </u>		,,(
	269,0-275,0	1070	900	281,0-287,0	100	130,0-170,0	3 <u>0</u> 0 10	ט ט־פר נ	
		1070	700	293,0-299,0	.00	130,0-170,0	JUU 13	,,u- <u>2</u> 3,(

G4

Full-load delivery Control-rod stop Test ou temp. 40°C (104°F) (2)		Breakaway			d stop mp. 40°C (104°F)	Starting lidie switching		Low idle speed 5		
rev/min	cm³/1000 strokes	rev/min		ev/min	cm³/1000 strokes	rev/min	cm³/1000 strokes	r év/m in	travel	
1	2	3)	2	6	7	8	9	
		1								
AC-Nr.	4 394 120									
1050	234,0-240,0	1070		00	246,0-252,0 268,0-274,0	100	130,0-170,0	300	19,0-25,	
AC-Nr.	4 394 122									
1050	262,0-268,0	1070		00 00	279,0-285,0 289,0-295,0	100	130,0-170,0	300	19,0-25,	
AC-Nr.	4 394 124									
1050	241,0-247,0	1070		00 00	265,0-271,0 268,0-274,0	100	130,0-170,0	300	19,0-25,	
AC-Nr.	4 394 126									
900	232,0-238,0	920	7	00	253,0-259,0	100	130,0-170,0	300	19,0-25,	
NC-Nr. 750	4 394 128 244,0-250,0	770	7	00	253,0-259,0	100	130,0-170,0	300	19,0-25,	
C No	4 204 420									
800	4 394 130 239,0-245,0	820	6	00	248,0-254,0	100	130,0-170,0	300	19,0-25,	
ic-Nr.	4 394 132									
000	212,0-218,0	1020	8	00	230,0-236,0	100	130,0-170,0	300	19,0-25,	
C-Nr.	4 394 134									
900	288,0-294,0	920	7	00	287,0-293,0	100	130,0-170,0	300	27,0-33,	
C. No.	A 20A 42C							•		
	4 394 136	4000	0	00	272 4 270 4	400	120 0 170 0	200	10 0 05	
000	255,0-261,0	1020		00 00	272,0-278,0 270,0-276,0	100	130,0-170,0	300	19,0-25,	
C. N	4 204 420									
	4 394 138	4070	0	00	222 0 220 0	400	120 0 170 0	200	40 0 05	
050	239,0-245,0	1070		00 00	233,0-239,0 273,0-279,0	100	130,0-170,0	300	19,0-25,	
C-No	A 20A 1A0									
000	4 394 140	1020	0	00	197,0-203,0	100	130,0-170,0	200	10 0 25	
000	215,0-221,0	1020		00	220,0-226,0	100	130,0-170,0	300	17,0-65,	
C-N-	4 394 142									
900	222,0-228,0	920	71	00	254,0-260,0	100	130,0-170,0	300	10 0-25	
		720	71		F0430 50030	100	10030-17030	JJU	13,0-63,	
	4 394 144									
050	257,0-263,0	1070	7	50	272,0-278,0	100	130,0-170,0	300	27,0-33,	
C-Nr.	4 394 148									
050	295,0-303,0	1075	9(00	309,0-315,0	100	130,0-170,0	300 2	25.0	

Full-load of Control-ro Test oil tel		Breakaway (2)	Control-re	Control-rod stoo		fuel delivery 6	rom iqj	e speed 5
revimin	cm³/1000 strokes	rev/min 4	rev/min	cm ³ /1000 strokes		cm³/1000 strokes	rev/min	
1	1	3	 	2	6	7	8	9
AC-Nr.	4 394 150			•				
1050	268,0-274,0	1070	900 700	274,0-280,0 280,0-286,0		130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 152							
1050	262,0-268,0	1070	900 700	257,0-273,0 267,0-273,0		130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 154							
1050	279,0-285,0	1070	900 700	283,0-289,0 293,0-299,0		130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 156							
1050	296,0-302,0	1070	900 700	301,0-307,0 309,0-315,0		130,0-170,0	300	19,0-25,0
Nr.	4 394 158 4 394 157							
1050	253,0-256,0	1070	900 700	252,0-258,0 269,0-275,0	100	130,0-170,0	300	19,0-25,0
C-Nr.	4 394 160		•					

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				p with Fitte					
Full-load delivery Control-rod stop			Fuel deli	very characteristics (5e)	ملاء -		Low idle speed 3		
	temp. 40°C (104°F) (2)	intermediate speed	rev/min		switchir			Control roc	
rev/min 1	cm ³ /1000 strokes	rev/min C	revimin 4	cm ³ /1000 strokes	rev/min 6	cm ³ /1000 strokes	rev/min	9 mm	
			1						
AC-Nr	. 4 394 246								
1050	211,0-220,0	1055-1075	975 700 600	237,5-247,0 258,5-269,5 255,5-266,0	;	130,0-170,0	300	19,0-25	
Tilt Adjus	stop part posi st stop part po	tion to obta sition to ob	in qua tain me	ntity at 1050 ean curve abou	PRM. ve.				
AC-Nr	. 4 394 248								
700 600	246,0 263,0	720			100	130,0-170,0	300	19,0-25	
AC-Nr	. 4 394 250								
1050	244,5-254,5	1060-1080			100	130,0-170,0	300	19,0-25	
	. 4 394 257								
600	258,0			•	100	130,0-170,0	300	27,0	
AC-Nr.	. 4 394 314								
900 700	246,0 240,0 267,0	1070			100	130,0-170,0	300	19,0-25	
IC-Nr.	. 4 394 331								
900 700	241,0-247,0 265,0-271,0 268,0-274,0	1070			100	130,0-170,0	300	19,0-25	
IC-Nr.	. 4 394 332								
050 900 700	268,0-274,0 274,0-280,0 280,0-286,0	1070			100	130,0-170,0	300 1	19,0-25,	
C-Nr.	4 394 347 .								
050 900 700	269,0-275,0 281,0-287,0 293,0-299,0	1070			100	130,0-170,0	300 1	9,0-25,	
C-Nr.	4 394 348								
050 900 700	234,0-240,0 246,0-252,0 268,0-274,0	1070			100	130,0-170,0	300 1	9,0-25,	
C-Nr.	4 394 349								
050 900 700	208,0-214,0 230,0-236,0 260,0-266,0	1070			100	130,0-170,0	300 1	9,0-25,	
C-Nr.	4 394 350								
)50 900 700	262,0-268,0 279,0-285,0 289,0-295,0	1070			100	130,0-170,0	300 1	9,0-25,	

C.	Settings	for	Fuel	Inject	tion F	ump	with	Fitte	d Governor	

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C. S	C. Settings for Fuel Injection Pump with Fitted Governor										
Control	d delivery rod stop			Fuel deli high idle	very characteristics (5e)	idle	fuel delivery 6	Low idle speed 5			
1	temp. 40°C (104°F) (2)	1	4				ng point		Control rod travel		
1	cm ³ /1000 strokes	rev/min		rev/min 4	cm ³ /1000 strokes	revimin 6	cm ³ /1000 strokes	reiv/mun 8	mm 9		
		1									
AC-Nr											
1050 900	253,0-256,0 252,0-258,0	1070				100	130,0-170,0	300	19,0-25,		
700	269,0-275,0										
AC-Nr.	. 4 394 352										
1050	262,0-268,0	1070				100	120 0-170 0	200	10 0 05		
900	267,0-273,0	1070				100	130,0-170,0	300	19,0-25,		
700	267,0-273,0										
AC-Nr.	4 394 353										
1050	279,0-285,0	1070				100	130,0-170,0	300	19,0-25,		
900 700	283,0-289,0 293,0-299,0										
0 C - N w	4 394 354										
1050	296,0-302,0	1070			•	400	420 0 470 0				
900	301,0-307,0	1070				100	130,0-170,0	300	19,0-25,		
760	309,0-315,0										
C-Nr.	4 394 356										
050	246,0	1070				100	130,0-170,0	300	19.0-25.0		
900 700	240,0 267,0										
	4 394 386										
600	167,0-175,0	620				100	130,0-170,0	300	25,0		
IC-Nr.	4 394 390										
900	259,0-267,0	925				100	130,0-170,0	300	19,0-29,0		
700	238,0-246,0			٠							
C-Nr.	4 394 428										
000 800	188,0-196,0 180,0-187,0	1025				100	130,0-170,0	300 2	25,0		
				•							
	4 394 473										
850 750	189,0-197,0 185,0-193,0	875				100	130,0-170,0	325 3	0,0		
	4 394 501										
900 700	175,0 158,0	925				100	130,0-170,0	300 1	9,0-25,0		
	4 394 521	4005				4.6.5	***		•		
000 700	239,0-247,0 229,0-235,0	1025				100	130,0-170,0	300 2	5,0		
	4 394 527	025				400	400 6 470 5				
900 300	161,0 151,0	925				100	130,0-170,0	300 1	9,0-25,0		
	-										

	ettings for Fu						Low id	le speed 5
Full-load Control-	od stop	Breakaway (2)	high idle	very characteristics speed (5b)	Starting fi	uel delivery (6)		
rev/min	cm ² /1000 strokes	revimin (4		cm³/1000 strokes		cm³/1000 strokes	rév/mu	Control root travel n i mm
1	2	3	4	5	6	7	8	9
AC-No	. 4 394 541	i	•	ı	, ,		1	•
1050	202,0-210,5	1060-1080			100	120 0 170		40.0.05
		1000-1000			100	130,0-170,	300	19,0-25
	. 4 394 550							
1000	230,5-239,5	1010-1030			100	130,0-170,0	300	19,0-25
AC-Nr.	. 4 394 561							
1050 900	258,0 256,0	1060-1080			100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 564							
1050 900	244,0 234,0	1070			100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 569							
1000	203,0-211,5	1010-1030			100	130,0-170,0	300	19,0-25
C-Nr.	4 394 590							
050	260,5-271,0	1060-1080			100	130,0-170,0	300	19,0-25
Beginr be "02	ning of movemen 20".	nt: 0,40 - 0,	.45 bar	at 750 PRM	and 0,9	00 bar pressi	ire,	gap shou
IC-Nr.	4 394 593							
050	251,5-261,5	1060-1080			100	130,0-170,0	300	19,0-25
C-Nr.	4 394 703							
050	260,5-271,0	1060-1080	900 700	267,0-278	0 100	130,0-170,0	300	19,0-25
obtair bar pi	top part posit n mean curve at ressure, gap sh 4 394 705	ove. Beginni	n quan	267,0-278 tity at 105 movement: 0	O PRM. A	djust stop ₁ ,45 bar at 7	oart 50 PR	position M and O,
"	4 394 706							
050	258,0	1060-1080			100	130,0-170	300	19,0-25
900	256,0		•					
	4 394 707	40.00						
050 900	244,0 234,0	1070	•		100	130,0-170,0	300	19,0-25
	4 394 718							
u-nr. 955	198,0-213,0	965-975			100	120 0 470 0	200	04 0 0=
800	196,0-210,0	<i>3</i> 03 - 3/3			100	130,0-170,0	300	21,0-27,
	4 394 719		•					
875 600	166,0-168,0 142,5-146,5	915			100	130,0-170,0	300	21,0-27,
C-Nr.	4 394 733							
000 300	255,0-261,0	1020			100	130,0-170,0	300	19,0-25,
	272,0-278,0 270,0-276,0		عدير جيري			-		
500	270,0-270,0		• .	I-ISO		•		

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3.	Settings	for Fuel	Injection	Pump with	Fitted	Governor	
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C. Se	ettings for Fu	el Injection	Pum	p with Fitte	d Go	vernor		
Full-load Control-		Breakaway 20	Fuel deli	very characteristics (5a)	Starting Idle	fuel delivery 6	Low id	e speed 5
Test oil t	emp. 40°C (104°F) 2	intermediate speed		poed (30)	switchin	g point		Control rod
revimin	cm ³ /1000 strokes	rev/min 40	revimin	cm ³ /1000 strokes		cm ³ /1000 strokes	rely/min	1
1	2	3	1	5	6	7	8	9
AC-Nr.	4 394 740/741							
1020 915	213,0-226,0 208,0-218,0	1030-1040						
AC-Nr.	4 394 744							
1050 900	250,0 256,0	1060-1080			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 745							
950 750	208,0-214,0 196,0-202,0	990			100	130,0-170,0	300	21,0-27,0
AC-Nr.	4 394 746							
875 600	161,0-165,0 140,0-144,0	890			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 771							
800 600	113,0-119,0 102,0-108,0	820			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 773							
800 600	125,0-131,0 134,0-140,0	820			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 775							
1025 900	192,0-198,0 180,0-186,0	1045			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 777							
1000 800 600	200,0-206,0 180,0-186,0 189,0-195,0	1020			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 779							
940	185,0-195,0	955-65	•		100	130,0-170,0	300 1	19,0-25,0
AC-Nr.	4 394 781							
1025 900 700	230,0-236,0 207,0-213,0 209,0-215,0	1040	•		100	130,0-170,0	300 1	19,0-25,0
AC-Nr	4 394 783							
1000 800	227,0-233,0 197,0-203,0	1020			100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 785		•			·		
1000	235,0-241,0	1020			100	130,0-170,0	300 1	D U-3E U
700	263,0-269,0	. VLV			1 00	130,0-1/0,0	200 l	3,0-23,0

C.	Settings	for Fuel	Injection	Pump with	Fitted	Governor
_				•		

Full-load of Control-ro Test oil tel		Breakaway	Ingh is	lelivery characterist to speed (36)	Idle	ing fuel deliv	e ry 6	Low idl	e speed 5
rev/min	cm³/1000 strokes	rev/min 3	G rev/m	in cm³/1000 strol	revit	nin cm³/100	00 strokes	relv/min 8	travel mm
I.O. No.	A 204 707		1	ı	1	1		i	[
1000 800 600	4 394 787 220,0-226,0 209,0-215,0 227,0-233,0	1020			1	00 130	,0-170, 0	300	19,0-25,
AC-Nr.	4 394 789								
910	190,0	930			1	00 130	,0-170,0	300	25,0
C-Nr.	4 394 791								
900 700	160,0-166,0 139,0-145,0	920			1	00 130	,0-170,0	300	19,0-25,
AC-Nr.	4 394 793								
600	124,0-130,0	620			1	00 130	,0-170,0	300	19,0-25,
	4 394 795								40 0 05
700 600	127,0-133,0 124,0-130,0	720			1:	00 130	,0-170,0	300	19,0-25,
NC-Nr.	4 394 797								
800 600	139,0-145,0 124,0-130,0	820			1	00 130	,0-170,0	300	19,0-25,
NC-Nr.	4 394 799								
925 800 600	157,0-163,0 145,0-151,0 134,0-140,0	945			1	00 130	,0-170,0	300	19,0-25,
AC-Nr.	4 394 801								
1000 800 700	180,0-186,0 154,0-160,0 142,0-148,0	1020			1	00 130	,0-170,0	300	19,0-25,
C-Nr.	4 394 803								
1050 900 800	207,0-213,0 161,0-175,0 147,0-153,0	1070			1	00 130	,0-170,0	300	19,0-25,
AC-Nr.	4 394 805								
900 700	187,0-193,0 162,0-168,0	920			1	00 130	,0- 170 , 0	300	27,0-33,
NC-Nr.	4 394 807								
900 700	200,0-206,0 184,0-190,0	920			1	00 130	,0-170,0	300	27,0-33,
IC-Nr.	4 394 809								
900 700	203,0-209,0 209,0-215,0	920			1	00 130	,0-170,0	300	19,0-25

Full-load o		Breakaway	(26)	Fuel deli	very characteristics (5a)	Starting i	fuel delivery 6	LOW 18	e speed 5
Control-ro Test oil le	mp. 40°C (104°F) 2	intermediate ape		ngn cae s	9 (S)	switchin	g point		Control roo
LOA/LUNU	cm ³ /1000 strokes	rev <i>it</i> nin	(4)	rev/min	cm ³ /1000 strokes		cm²/1003 strokes	rev/min	mm
1	2	3		-	5	6	7	8	9
AC-Nr.	4 394 811								
750 600	185,0-191,0 222,0-228,0	770				100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 813								
800 600	210,0-218,0 223,0-229,0	820				100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 815								
1050 900 700	222,0-228,0 202,0-208,0 207,0-213,0	1070				100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 817	•							
1000 800 600	240,0-246,0 224,0-230,0 237,0-243,0	1020			·	100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 819								
900 700	245,0-251,0 224,0-230,0 237,0-243,0	1070				100	130,0-170,0	300	19,0-25
C-Nr.	4 394 821								
800	217,0-223,0 197,0-203,0 219,0-225,0	1020				100	130,0-170,0	300	19,0-25
C-Nr.	4 394 823								
	210,0-216,0 212,0-218,0	920				100	130,0-170,0	300	27,0-33
C-Nr.	4 394 825								
900	269,0-275,0 281,0-287,0 293,0-299,0	1070				100	130,0-170,0	300	19,0-25,
C-Nr.	4 394 827								
900	234,0-240,0 246,0-252,0 268,0-274,0	1070				100	130,0-170,0	300 1	19,0-25,
C-Nr.	4 394 829								
050 900	262,0-268,0 279,0-285,0 289,0-295,0	1070				100	130,0-170,0	300 1	9,0-25,

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100 130,0-170,0 300 19,0-25,0

1050 900 700 241,0-247,0 265,0-271,0 268,0-274,0

1070

		_ ,	
C.	Settings	for Fuel Injection	Pump with Fitted Governor

C. S	ettings for Fu		Z-1				li en de	
Control	d delivery Frod stop	· ·	Fuel del	ivery characteristics (5e speed (5b)	Ich	•	Irom 141	e speed 5
	temp. 40°C (104°F) (2)	intennediate speed	اہ			ng point		Control rod
rev/min	cm ³ /1000 strokes	rev/min	rev/min	cm³/1000 strokes	rev/min 6	cm³/1000 strokes	rév/min 8_	9 9
1			1			j		
AC-Nr.	. 4 394 833							
900	232,0-238,0	920			100	130,0-170,0	300 1	9.0-25.0
700	253,0-259,0							-,0 -0,0
AC-Nr.	4 394 835							•
750 700	244,0-250,0	770			100	130,0-170,0	300 1	9,0-25,0
	253,0-259,0							
	4 394 837							
800 600	239,0-245,0 248,0-254,0	820			100	130,0-170,0	300 1	9,0-25,0
	4 394 839							
1000	212,0-218,0	1020			100	120 0-170 0	200 4	0 0 05 0
800	230,0-236,0	1020		•	100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 841							
900	288,0-294,0	920			100	130,0-170,0	300 2	7.0-33.0
700	287,0-293,0					•		. ,
AC-Nr.	4 394 843							
1000	255,0-261,0	1020			100	130,0-170,0	300 1	9,0-25,0
800 600	272,0-278,0 270,0-276,0							
AC-Nr	4 394 845							
1050	239,0-245,0	1070			100	130,0-170,0	300 10	0 0-25 0
900	233,0-239,0				100	130,0-170,0	300 1	9,0-25,0
700	273,0-279,0							
	4 39% 847	4000						
1000 800	215,0-221,0 197,0-203,0	1020			100	130,0-170,0	300 19	9,0-25,0
600	220,0-226,0							
AC-Nr.	4 394 849							
900	222,0-228,0	920			100	130,0-170,0	300 19	9,0-25,0
700	254,0-260,0							
	4 394 851							
1050 750	257,0-263,0 272,0-278,0	1070			100	130,0-170,0	300 27	7,0-33,0
1050	4 394 853 295,0-303,0	1075			100	120 0 170 0	200 05	
900	309,0-315,0	10/3			100	130,0-170,0	300 ZS	, ,
AC-Nr.	4 394 857							
1050	262,0-268,0	1070			100	130,0-170,0	300 1¢)_0-25_0
	267,0-273,0	· 					14	, o p U
700	267,0-273,0	To	octoi	-ISO 41	12			

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Control-	delivery rod stop	`	20) Fu	el delin N idle 1	very characteristics (5e)	Idie	fuel delivery 6	Low idl	e speed 5
	emp. 47°C (104°F) (2)	intermediate apped	\sim l			awitchir	g point		Control rod
190/min	cm³/5000 strokes		19)	/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	reiv/min	mm
1	+8	3	-1-		5	6	7	8	•
									·
AC-Nr.	4 394 861								
1050	296,0-302,0	1070				100	130,0-170,0	300 1	9,0-25,0
900 700	301,0-307,0 309,0-315,0								
700	309,0-319,0								•
AC-Nr.	4 394 863								
1050	253,0-256,0	1070				100	130,0-170,0	300 1	9,0-25,0
900	252,0-258,0								
700	269,0-275,0								
AC-Nr.	4 394 865								
1050	208,0-214,0	1070				100	130,0-170,0	300 1	9,0-25,0
900	230,0-236,0								
700	260,0-266,0				•				
AC-Nr.	4 394 867								
900	181,0-187,0	920				105	130'20-170.0	300 1	9,0-25,0
700	172,0-178,0								
AC-Nr.	4 394 869								
925	176,0-182,0	945				100	130,30170,0	300 t	9.0#25.0
800	162,0-168,0						11.0 % 5 1 1 7 0 3 0	-00	J 10 - 4 6 10
700	177,0-183,0								
AC-Nr.	4 394 871								
900	173,0-179,0	920				100	130,0-170,0	300 1	9.0-25.0
800	160,0-166,0	220					130,0 170,0	000 1	210 5010
AC 11	A 204 072							•	
	4 394 873	045				400		000 0	
925 800	237,0-243,0 251,0-257,0	945				100	130,0-170,0	300 2	7,0-33,0
700	269,0-275,0								
AC-No	4 394 875							•	
		720				#00	120 0-170 6	200 2°	7 0 22 0
700 600	218,0-224,0 240,0-246,0	720				* 00	130,0-170,0	300 C	7,0-33,0
		•							
	4 394 877								
1050	213,0-219,0	1060-1080				100	130,0-170,0	300 19	9,0-25,0
900 700	212,0-218,0 240,0-246,0								
	4 394 879					•			
1050	211,0-220,0	1055-1075	975 700		237,5-247,0	100	130,0-170,0	19,0-2	25,0
			600		258,5-269,5 255,5-266,0				
					•				

Tilt stop part position to obtain quantity at 1050 PRM. Adjust stop part position to obtain mean curve above.

G14

C. Settin	gs for Fue	Injection	Pump with	Fitted	Governor

-19-

Full-load Control-re Test oil te		Breakaway 20	Fuel delin high ide s	very characteristics (5e) speed (30)	Starting Idle switchin	fuel delivery 6	LOW 1d	Control ro
tev/min	cm ³ /1000 strotues	rev/min 4a	rev/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	reiv/mw	travel mm
1	2	3	 	5	6	7	8	9
_	•	•			•			
AC-Nr.	4 394 881							
700 600	246,0 263,0	720			100	130,0-170,0	300	19,0-25
C-Nr.	4 394 883							
050	244,5-254,5	1060-1080		į	100	130,0-170,0	300	19,0-25
C-Nr.	4 394 885			•				
600	258,0				100	130,0-170,0	300	27,0
C-Nr.	4 394 891							
600	167,0-175,0	620			100	130,0-170,0	300	25,0
C-Nr.	4 394 893							
900 700	259,0-267,0 238,0-246,0	925			100	130,0-170,0	300	19,0-29
C-Nr.	4 394 895							
000 008	188,0-196,0 180,0-187,0	1025			100	130,0-170,0	300	25,0
C-Nr.	4 394 897							
850 750	189,0-197,0 185,0-193,0	875			100	130,0-170,0	325	30,0
C-Nr.	4 394 899							
900 700	175,0 158,0	925			100	130,0-170,0	300	19,0-25
C-Nr.	4 394 905							
	239,0-247,0 229,0-235,0	1025			100	130,0-170,0	300	25,0
C-Nr.	4 394 907							
	161,0 151,0	925			100	130,0-170,0	300	19,0-25
eginn	ing of movemen ar pressure, g	t: 0,40 - 0,4 ap should be	5 bar "020".	at 750 PRM a	nd			
C-Nr.	4 394 909							
050	202,0-210,5	1060-1080			100	130,0-170,0	300	19,0-25,
C-Nr.	4 394 911							
000	230,5-239,5	1010-1030			100	130,0-170,0	300	19,0-25,
C-Nr.	4 394 915							
000	203,0-211,5	1010-1030			100	130,0-170,0	300	10 0-25

-20-

AC-Nr. 4 394 917

1050 260.5-271.0 1060-1080

100 130,0-170,0 300 19,0-25,0

Beginning of movement: 0,40 - 0,45 bar at 750 PRM and

0,90 bar pressure, gap should be "020".

AC-Nr. 4 394 919

1050 215,5-261,5 1060-1080

100 130,0-170,0 300 19,0-25,0

AC-Nr. 4 394 921

1050 260,5-271,0

1060-1080 900

267,0-278,0

100 130,0-170,0 300 19,0-25,0

700 267,0-278,0

Tilt stop part position to obtain quantity at 1050 PRM. Adjust stop part position to obtain mean curve above. Beginning of movement: 0,40 - 0,45 bar at 750 PRM and 0,90 bar pressure, gap should be "020".

AC-Nr. 4 394 925

1050 244,0

1070

100 130,0-170,0 300 19,0-25,0

900 234,0

AC-Nr. 4 394 997

900 173,0-179,0

920

100 130,0-170,0 300 19,0-25,0

800 160,0-166,0

WPP 001/4 ALO 16,0 a 2

PE 6 P 120 A 420 LS 152

ROV 300...950 PA 112 KR

supersedes

0 401 846 223

1 - 5 - 3 - 6 - 2 - 4

companyAllis-Chalmers engine: 16000-25000

test tubing 9 681 230 703.

Values only apply to test nozzle-and-holder assembly 0 681 443 022 and fuel-injection

All test specifications are valid for Boach Fuel Injection Pump Test Benches and Testers

A. Fuel Injection Pump Settings

Port closing at prestroke

2.8-2.9(2.75-2.95m)m (from BDC)

Rotational speed rev/min	Control rod travel :nm 2	Fuel delivery cm ³ /100 strokes 3	Difference cm ³ / 100 strokes 4	Control rod travel mm 2	Fuel delivery cm ³ /100 strokes 3	Spring pre-tensioning (torque-control valve) mm 6
1000	12	26,4 - 27,1			1,0	
200	6	4,2 - 5,2				

Adjust the fuel delivery from each outlet according to the values in

B. Governor Settings

Upper rated	speed			Intermediate	rated sp	eed .	Lower rated	speed		Sliding s	ieeve travei
Degree of deflection of control	rev/min Control rod travel	ft@AG1	•	Degree of deflection of control		Control rod travel	Degree of deflection of control		Control rod travel		1
lever	mm	rev/min (2	lever	rev/min	mm (4)	laver	rev/min	mm ③	rev/min	mm
1	2	3		4	5	6	7	8	9	10	11
66°	1050 1100 1150 1210 1300	15,0-18, 10,7-15, 6,0-11, 0- 7, 0	0				10°	250 350 450 550	6,4-8,0 3,0-5,2 1,3-2,8 0	180- 260 400 550 1000 1200- 1290	Start 1,8-2,7 3,8-4,2 7,5-7,9 End

Torque control travel a =

C. Settings for Fuel Injection Pump with Fitted Governor

Full-load d Control-ro Test oil ter		Rotational-speed 2b fimitation stermediate speed	Fuel delic high idle s	very characteristics 5a	Starting Idle switchin		Torque- travel	control 5
rev/min	cm³/1000 strokes	rev/min 4	rev/min	crn ³ /1000 strokes	rev/min	cm ³ /1000 strokes	rev/min	travel mm
1	2	3	4	5	6	7	8	9

Checking values in brackets

* 1 mm less control rod travel than col. 2

C. Settings	San Fue	I Inication	Champan sacidly	Calcomor
	IOI PUE		rum with	COASING
			a more and	

<u>C. S</u>	ettings for Fu	iei mjecu	on Pun	np with ritte	ed Go	vernor		
Contro	nd delivery Hrod stop I temp. 40°C (104°F) (2)	Breakaway intennediate apse	Contro	id delivery Frod stop I temp. 40°C (104°F)	Idle	fuel delivery 6	Low 1	dle speed 5
revima		rev/min	(4) rev/mar	cm³/1000 strokes	rev/min	cm³/1000 strokes	rev/m	travel in mm
1	2	3	1	2	6	7	8	9
1	· ·	1	ı	F	ı	•	i	1 1
AC-Nr	. 4 320 754							
1025	91,0- 93,0	1040	700	99,0-103,0	100	90,0-130,0	300	19,0-25,0
AC-Nr	. 4 320 793							
1000	122,0-124,0	1020	700	126,0-130,0	100	90,0-130,0	300	19,0-25,0
AC-Nr.	4 320 815							
900	100,0-106,0	910-920	700 600	101,0-107,0 111,0-117,0	100	90,0-130,0	300	19,0-25,0
AC-Nr.	4 320 816							
900	97,0-103,0	910-920	800	98,0-104,0	100	90,0-130,0	300	19,0-25,0
AC-Nr.	4 320 817							
1100	139,0-143,0	1120	800 600	149,0-154,0 153,0-161,0	100	90,0-130,0	375	9,0-19,0
AC-Nr.	4 320 829							
1100	139,0-143,0	1120	800 600	149,0-154,0 153,0-161,0	100	90,0-130,0	375	9,0-19,0
AC-Nr.	4 320 933							
900	102,0-110,0	1040	800	107,0-116,0	100	90,0-130,0	300	25,0
AC-Nr.	4 320 939							
900	98,5 <u>+</u> 3	1040	700	107,5 <u>+</u> 4	100	90,0-130,0	300	25,0
AC-Nr.	4 320 940							
900	78,0- 86,0	1040	700	100,0-109,0	100	90,0-130,0	300	25,0
AC-Nr.	4 320 941							
1025	91,0- 93,0	1040	700	99,0-103,0	100	90,0-130,0	300	19,0-25,0
AC-Nr	4 320 942							•
	122,0-124,0	1020	700	126,0-130,0	100	90,0-130,0	200	10.0 25.0
		1020	700	120,0-130,0	100	90,0-130,0	300	19,0-25,0
AC-Nr.	4 320 980							
900	108,0-116,0	1120	800	-	100	90,0-130,0	375	9,0-19,0
AC-Nr.	4 320 981							
900	111,0-119,0	1020	800	112,0-118,0	100	90,0-130,0	300	25,0
AC_N∽	4 321 016					- · · · · · · · · · · · · · · · · · · ·		,.
750	95,0-101,0	1020	750	95,0-101,0	100	00 0-120 0	200	0F 0
	•	1000	, 50	JJ3U-1013U	100	90,0-130,0	300	25,0
	4 321 064							
1000	112,0	1030	800	112,5	100	90,0-130,0	300	25,0

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C.	Settings	for Fuel Ir	njection	Pump with	Fitted	Governor

Full-load of Control-ro Test oil te		Breakaway Internediate spee	(20) Full-load Control-rest oil te		Starting i Idle awitchin	luel delivery 6 g point	Low 1d1	e speed 5
rev/min	cm ³ /1000 strokes	rev/min	rev/min	cm³/1000 strokes		cm³/1000 strokes	rev/min	travel mm
1	2	3		2	6		8	-
C-Nr.	4 359 816							
900	100,0-106,0	910-920	700	101,0-107,0	100	90,0-130,0	300	19,0-25
			600	111,0-117,0				
C-Nr.	4 359 826							
900	97,0-103,0	910-920	800	98,0-104,0	100	90,0-130,0	300	19,0-25
C-Nr.	4 359 828							
100	139,0-143,0	1120	800 600	149,0-154,0 153,0-161,0	100	90,0-130,0	375	9,0-19
			000	130,0 101,0				
	4 359 830	4040	700	99,0-103,0	100	90,0-130,0	200	10 0-25
025	91,0- 93,0	1040	700	33,0-103,0	100	30,0-130,0	300	13,0-25
	4 359 832	4000	700	405 0 400 0	400	00 0 400 0	200	40 0 05
000	122,0-124,0	1020	700	126,0-130,0	100	90,0-130,0	300	19,0-25
C-Nr.								
050	205,0-215,0	1065-80	900	167,0-177,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 695							
900	149,0-155,0	920	-	•	-	-	300	19,0-25
C-Nr.	4 392 697							
750	185,0-191,0	770	600	222,0-228,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 699			•			•	
800	210,0-218,0	820	600	223,0-229,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 701							
900	203,0-209,0	920	700	209,0-215,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 703							
050	220,0-230,0	1060-70	900	200,0-210,0	100	130,0-170,0	300	19,0-25
			700	205,0-215,0				
	4 392 707	1000 00	000	000 0 000 0	400	420 0 470 0		40 0 05
050	243,0-253,0	1060-80	900 700	222,0-232,0 235,0-245,0	100	130,0-170,0	300	19,0-25
C_814	4 392 709							
000	217,0-223,0	1020	800	197,0-203,0	100	130,0-170,0	300	19.0-25
		1444	600	219,0-225,0			J	,
C-Nr.	4 392 711							
600	231,0-237,0	620	-	•	-	-	300	19,0-25

Full-load Control- Test oil is		Breakaway	②	Full-load Control- Test oil 1		וע	idie 🗀	fuel delivery 6	Low id	le speed 5
rev/min	cm³/1000 strokes	rev/min	•	rev/min	cm³/1000 strokes	.	rev/min	cm ³ /3000 strokes	reiv/mun	travel
1	2	3	-	1	2	-	6	7	8	9
	•	•	·	•	•	•	·		•	•
C-Nr.	4 392 715									
050	187,0-193,0	1070		900 700	174,0-180, 175,0-181,		100	130,0-170,0	300	19,0-25
C-Nr.	4 392 717									
050	224,0-230,0	1070		800	185,0-191,	,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 719									
050	200,0-206,0	1070		900 700	190,0-196, 214,0-220,		100	130,0-170,0	300	19,0-25
C-Nr.	4 392 721									
050	242,0-248,0	1070		900 700	220,0-226, 230,0-236,		100	130,0-170,0	300	19,0-25
C-Nr.	4 392 723									
750	244,0-250,0	770		700	253,0-259,	0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 725									
800	239,0-245,0	820	(600	248,0-254,	0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 727									
900	232,0-238,0	920		700	253,0-259,	0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 729									
000	212,0-218,0	1020	:	800	230,0-236,	0	100	130,0-170,0	300.	19,0-25
C-Nr.	4 392 731									
900	288,0-294,0	920	•	700	287,0-293,	0	100	130,0-170,0	300	27,0-33
C-Nr.	4 392 735									
050	239,0-245,0	1070		900	233,0-239,		100	130,0-170,0	300	19,0-25
				700	273,0-279,	0				
	4 392 737									
000	215,0-221,0	1020		800 600	197,0-203, 220,0-226,		100	130,0-170,0	300	19,0-25
O N:	A 200 720					•				
C-Nr. 050	4 392 739 207,0-213,0	1050		900	195,0-201,	n	100	120 0_170 0	200	10 0 05
U 3U	£0/,U-£13,U	1030		700	225,0-231,		100	130,0-170,0	300	13,0-25
C-Nr.	4 392 741									
050	213,0-219,0	1070		900 700	202,0-208, 230,0-236,		100	130,0-170,0	-	-
C-Nr.	4 392 743									
050	220,0-226,0	1070	9	900	210,0-216,	0	100	130,0-170,0	300	19.0-25
				700	243,0-249,					,

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Testoil-ISO 4113

520

ery	Breakaway (Full-load delivery Control-rod stop	Starting fuel delivery idle		Speed 5	-
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Full-toad delivery Control-rod stop Test oil temp. 40°C (104°F) 2		Breakaway intermediate spec	Con Test	oad delivery rol-rod stop oil temp. 40°C (104°F)	idle	ng fuel delivery 6 Low idle speed 5 hing point Control row			
rev/min	cm ³ /1000 strokes	rev/min	(4) revh	nn cm³/1000 strokes	rev/min	cm³/1000 strokes	relv/men		
1	2	3	-1-	3	6	7	8	9	
			•	•	•		•	•	
C-Nr.	4 392 747								
050	227,0-233,0	1070	900 700	208,0-214,0 247,0-253,0	100	130,0-170,0	300	19,0-25,	
C-Nr.	4 392 749								
050	230,0-234,0	1070	-	•	100	130,0-170,0	300	19,0-25,	
C-Nn	4 392 750								
050	230,0-234,0	1070	_	-	100	130,0-170,0	300	19.0-25.	
		1070				,.		13,0 23,	
	4 392 768								
800	123,0-133,0	820	600	132,0-142,0	100	130,0-170,0	300	19,0-25	
C-Nr.	4 392 775/776								
875	162,0-164,0	890	600	140,0-144,0	100	130,0-170,0	300	19,0-25	
C-Nn	4 392 777								
950	205,0-207,0	970	700	195,0-199,0	100	130,0-170,0	300	19.0-25.	
	•	370	700	133,0-133,0	100	130,0 177,0	500	13,0-23	
	4 392 778								
950	208,0-214,0	990	750	196,0-202,0	100	130,0-170,0	300	21,0-27	
C-Nr.	3 392 779								
025	190,0-200,0	1030-40	1000	191,0-201,0	100	130,0-170,0	300	19,0-25	
			900	178,0-188,0					
C-Nr.	4 392 781						•		
025	228,0-238,0	1050-60	900	205,0-215,0		130,0-170,0	300	19,0-25	
			700	207,0-217,0					
C-Nr.	4 392 953								
940	185,0-195,0	955-65	-	-	100	130,0-170,0	300	19,0-25	
C-Nr	4 393 095								
050	211,0-221,0	1060-80	900	210,0-220,0	100	130,0-170,0	300	19,0-25	
	, , _		700	238,0-248,0	- 3-	,. ,,,.		,	
C-Nr.	4 393 307								
900	210,0-216,0	920	700	212,0-218,0	100	130,0-170,0	300	27.0-33.	
						,,.	_ • •	,	
	4 393 431	4070		000 0 005 3	400	420 0 470 0	200	40 0 0=	
050	208,0-214,0	1070	900 700	230,0-235,0 260,0-266,0	100	130,0-170,0	300	19,0-25,	
		4070		000 5 000 0	400	120 0 170 0	200	10 0 05	
050	242,0-248,0	1070	900 700	220,0-226,0 230,0-236,0	100	130,0-170,0	300	19,0-25,	

C. Settings for Fuel Injection Pump with Fitted Governor								
Control	d delivery rod stop temp. 40°C (104°F) (2)	Breakaway (Full-los Conero Test 02	nd delivery (2) Frod stop I temp. 40°C (104°F)	iole .	tuel dativery 6	Low 1d	le speed 5) Control rod
revimin		rav/min (9 100/1111	• -	ròn/min	cm ³ /1000 strokes	rév/mun	travel
1	2	3	- 1		6	7	8	
AC-Nr	. 4 393 823							
1050	187,0-193,0	1070	900 700	174,0-180,0 175,0-181,0	100	130,0-170,0	300	19,0-25,
AC-Nr.	. 4 393 825							
1050	224,0-230,0	1070	800	185,0-191,0	100	130,0-170,0	300	19,0-25,
AC-Nr.	. 4 393 827							
1050	200,0-206,0	1070	900 700	190,0-196,0 214,0-220,0	100	130,0-170,0	300	19,0-25,
AC-Nr.	. 4 393 829							
1050	230,0-234,0	1070	-	-	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 393 831			•				
1050	213,0-219,0	1070	900 700	202,0-208,0 230,0-236,0	100	130,0-170,0	-	-
AC-Nr.	4 393 833							
1050	204,0	1060-1080	900	280,5	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 393 835							
1050	220,0-226,0	1070	900 700	210,0-216,0 243,0-249,0	100	130,0-170,0	300	19,0,25,0
AC-Nr.	4 393 837							
1050	227,0-233,0	1070	900 700	208,0-214,0 247,0-253,0	100	130,0-170,0	300 1	19,0-25,0
AC-Nr.	4 393 890			·				
950	208,0-214,0	990	750	196,0-202,0	100	130,0-170,0	300 2	21,0-27,0
AC-Nr.	4 393 891							•
955	208,0	965-975	895	203,0	-		•	-
AC-Nr.	4 393 961							
900	181,0-187,0	920	700	172,0-178,0	100	130,0-170,0	300 1	9.0-25.0
AC-Nr.	4 394 001					•		-,,-
700	218,0-224,0	720	600	240,0-246,0	100	130,0-170,0	300 3	7 1-22 1
	4 394 017	· - ·				.00,0 1/0,0	JUU 2	,,u-33,U
950	208,0-214,0	990	750	196,0-202,0	100	130,0-170,0	3UU 3	1 በ_27 ሳ
	•				. 50	10030-17030	JUU Z	1,0-27,0
700	4 394 020 249,0-257,0	725	600	258,0-264,0	100	120 0.470 0	200 4	0 0 00 0
, 50	L 17) U - LJ/) U	123		£30,0~204,0	100	130,0-170,0	300 1	9,0-29,0

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Control	d delicary rod stop	Breakaway		ull-load d ontroi-ro		اك	Idle		<u></u>	Low i	dle speed 5
	temp. 40°C (104°F) (2)	intermediate spe		•	np. 40°C (104°F) cm²/1000 stroke	ı	awitchir	1			Control rod travel
rev/min	2	rev <i>in</i> in 3		w/min	2		6	cm³/1000 strokes 7		ráv/m 8	n mm 9
			- 1		1					1	
AC-Nr	. 4 394 062										
800	113,0-119,0	820	60	00	102,0-108	,0	100	130,0-170	,0	300	19,0-25,
AC-Nr	. 4 394 064										
875	161,0-165,0	890	60	0	140,0-144	,0	100	130,0-170	,0	300	19,0-25,
AC-Nr.	. 4 394 066										
800	125,0-131,0	820	60	10	134,0-140	,0	100	130,0-170	-0	300	19,0-25,
AC-Nr.	. 4 394 068										
1025	192,0-198,0	1045	90	0	180,0-186	,0	100	130,0-170	,0	300	19,0-25,0
AC-Nr.	4 394 070										
1000	200,0-206,0	1020	80		180,0-186		100	130,0-170	,0	300	19,0-25,0
			60	U	189,0-195	,0					
	4 394 072	055 65									
940	185,0-195,0	955-65			-		100	130,0-170	,0	300	19,0-25,0
AC-Nr.				_							
1025	230,0-236,0	1040	90 70	-	207,0-213, 209,0-215,		100	130,0-170	,0	300	19,0-25,0
AC-Nr.	4 394 076										
1000	227,0-233,0	1020	80	0	197,0-203,	0	100	130,0-170	.0	300	19.0-25.0
AC-Nr.	4 394 078								•		
1000	235,0-241,0	1020	700)	263,0-269,	0	100	130,0-170	,0	300	19.0-25.0
AC-Nr.	4 394 080										20,0
1000	220,0-226,0	1020	800		209,0-215,	0	100	130,0-170	.0	300	19.0.25.0
			600) ;	227,0-233,	0					,.,.,.
-	4 394 082										
910	190,0	930	-		-		100	130,0-170,	0	300	25,0
	4 394 084										
900	160,0-166,0	920	700) 1	39,0-145,	0	100	130,0-170,	0	300	19,0-25,0
	4 394 086										
600	124,0-130,0	620	-		-		100	130,0-170,	0 :	300	19,0-25,0
	4 394 088										
700	127,0-133,0	720	600	1	24,0-130,0	0	100	130,0-170,	0 3	300 1	9,0-25,0
AC-Nr.	4 394 090										
800	139,0-145,0	820	600	1	24,0-130,0	0 '	100	130,0-170,	0 3	300 1	9,0-25,0

	Cattinge	for	Eugl	Injection	Dump	with	Eitted	Governor
V.	BerraiA	101	1 461	milection	dilling.	441611	1 11100	20101101

	d delivery Frod \$100	Breakaway	(20) Full-toat Control	delivery 2	Idle		Low idle speed 3
	temp. 40°C (104°F) (2	entermediate sp	eed Test of	temp. 40°C (104°F)	awitchi	ng point 	Control rod travel
revimu		rev/min	rev/min		rev/min	cm³/1000 strokes	rev/min mm
1	2	3		2	6	 	-
AC-Nr	. 4 394 092						
925	157.0-163.0	945	800	145,0-151,0	100	120 0-170 0	200 40 0 25
JLJ	13730-10330	343	600	134,0-140,0	100	130,0-170,0	300 19,0-25,
AC-Nr.	. 4 394 094						
1000	180,0-186,0	1020	800 700	154,0-160,0 142,0-148,0	100	130,0-170,0	300 19,0-25,
AC-Nr.	4 394 096						
1050	207,0-213,0	1070	900 800	161,0-175,0 147,0-153,0	100	130,0-170,0	300 19,0-25,
AC-Nr.	4 394 098						
900	187,0-193,0	920	700	162,0-168,0	100	130,0-170,0	300 27,0-33,0
AC-Nr.	4 394 100						
900	200,0-206,0	920	700	184,0-190,0	100	130,0-170,0	300 27,0-33,0
AC-Nr.	4 394 102						
900	203,0-209,0	920	700	209,0-215,0	100	130,0-170,0	300 19,0-25,0
AC-Nr.	4 394 104						
750	185,0-191,0	770	600	222,0-228,0	100	130,0-170,0	300 19,0-25,0
AC-Nr.	4 394 106			•			•
800	210,0-218,0	820	600	223,0-229,0	100	130,0-170,0	300 19.0-25.0
C-Nr.	4 394 108						
050	222,0-228,0	1070	900	202,0-208,0	100	130,0-170,0	300 19,0-25,0
		•	700	207,0-213,0			
C-Nr.	4 394 110						
000	240,0-246,0	1020	800 600	224,0-230,0	100	130,0-170,0	300 19,0-25,0
C Alm	A 20A 442		000	237,0 273,0			
050	4 394 112 245,0-251,0	1070	900	224,0-230,0	100	120 0-170 0	200 40 0 0 0
330	E4030-20130	10/0	700	237,0-243,0	100	130,0~1/0,0	300 19,0-25,0
C-Nr.	4 394 114						
000	217,0-223,0	1020	800	197,0-203,0	100	130,0-170,0	300 19,0-25,0
	•		600	219,0-225,0			
	4 394 116						
900	210,0-216,0	920	700	2:2,0-218,0	100	130,0-170,0	300 27,0-33,0
C-Nr.	4 394 118						
050	269,0-275,0	1070	900 700	281,0-287,0	100	130,0-170,0	300 19.8-25.0

My	Breakaway	(2b) Full-load delivery	Starting fuel delivery	(B) Low	idle speed 5	
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Full-toad	ttings for Fu	Breakaway	(2a)	uli-load	delivery (2	Starting	fuel delivery (6)	Low id	e speed 5
Control·n		intermediate sp	•••]	Control n	od stop imp. 40°C (104°F)	N/AP	ng point		Control rod
rev/min	cm³/1000 strokes	rev/min	(4)	ev/min	cm³/1000 strokes	rev/min	cm ³ /1000 strokes	revimin	travei t mm
<u> </u>	2	3			2	6	7	8	9
· AC-Nr.	4 394 120	•	·		•				
1050	234,0-240,0	1070	9	00	246,0-252,	0 100	130,0-170,0	300	19.0-25.
. 000	20130 21030			00	268,0-274,				
AC-Nr.	4 394 122								
1050	262,0-268,0	1070	9	00	279,0-285,	0 100	130,0-170,0	300	19,0-25,
			7	00	289,0-295,	0			
AC-Nr.	4 394 124								
1050	241,0-247,0	1070		00	265,0-271,		130,0-170,0	300	19,0-25,
			7	00	268,0-274,	U			
AC-Nr.	4 394 126								
900	232,0-238,0	920	7	00	253,0-259,	0 100	130,0-170,0	300	19,0-25,
AC-Nr.	4 394 128								
750	244,0-250,0	770	7	Õ0	253,0-259,	0 100	130,0-170,0	300	19,0-25,
AC-Nr.	4 394 130								
800	239,0-245,0	820	6	00	248,0-254,0	0 100	130,0-170,0	300	19,0-25,
	4 394 132								
1000	212,0-218,0	1020	8	00	230,0-236,0	0 100	130,0-170,0	300	19.0-25.
		.020			200,0 200,0		,		,,
	4 394 134	920	7	00	207 0-203 (0 100	130,0-170,0	300	27 0_22
900	288,0-294,0	920	•	UU	207,0-293,0	0 100	130,0-170,0		27,0-33,
IC-Nr.									
1000	255,0-261,0	1020		00 00	272,0-278,0 270,0-276,0		130,0-170,0	300	19,0-25,
	4 394 138	4070	•	00	000 0 000	. 400	400 0 470 0	200	40 0 05
1050	239,0-245,0	1070		00 00	233,0-239,0 273,0-279,0		130,0-170,0	300	19,0-25,
1 C _ N _	4 394 140								
1000	215,0-221,0	1020	Ω	00	197,0-203,0	0 100	130,0-170,0	300	19.0-25
. 000				00	220,0-226,0		10030 17030	200	,
AC-Nr.	4 394 142								
900	222,0-228,0	920	7	00	254,0-260,0	0 100	130,0-170,0	300	19,0-25,
	4 394 144								
050	257,0~263,0	1070	7	50	272,0-278,0	n 100	130,0-170,0	300	27.N-33
		1070	,			00	10030 17030	J00	_/ ,U 'UU ,
	4 394 148	40==	_	00	200 2 242		400 0 470 0	000	05.0
050	295,0-303,0	1075	9	00	309,0-315,0	0 100	130,0-170,0	300	25,0

Full-load of Control-ro Test oil te		Breakaway	Con	load deliver troi-rod stor oil temp. 40	,	2	Starting idle awitchir	fuel delivery g point	6	Low id	le speed 5
tev/min	cm ³ /1000 strokes	rev/min	revi		/1000 stroke	8	rev/min	cm³/1000 strol	26	reiv/mun	1
-	2	3		2	·····		6	/		8	9
AC-Nr.	4 394 150										
1050	268,0-274,0	1070	900 700		4,0-280 0,0-286	•		130,0-1	70,0	300	19,0-25
AC-Nr.	4 394 152										
1050	262,0-268,0	1070	900 700		7,0-273 7,0-273		100	130,0-1	70,0	300	19,0-25
AC-Nr.	4 .394 154										
1050	279,0-285,0	1070	900 700		3,0-289 3,0-299		100	130,0-1	70,0	300	19,0-25
AC-iir.	4 394 156										
1050	296,0-302,0	1070	900 700		1,0-307 9,0-315	-	100	130,0-1	70,0	300	19,0-25
\C-Nr.	4 394 158 4 394 157										
1050	253,0-256,0	1070	900 700		2,0-258 9,0-275		100	130,0-1	70,0	300	19,0-25
C-Nr.	4 394 160										
050	208,0-214,0	1070	900 700		0,0-235 0,0-266		100	130,0-1	70,0	300	19,0-25
C-Nr.	4 394 162										
900	181,0-187,0	920	700	17	2,0-178	,0	100	130,0-1	70,0	300	19,0-25
C-Nr.	4 394 164										
925	176,0-182,0	945	800 700		2,0-168 7,0-183		100	130,0-1	70,0	300	19,0-25
C-Nr.	4 394 166										
900	173,0-179,0	920	800	160	0,0-166	,0	100	130,0-1	70,0	300	19,0-25
C-Nr.	4 394 168										
925	237,0-243,0	945	800 700		1,0-257 9,0-275	_	100	130,0-1	70,0	300	27,0-33
C-Nr.	4 394 170										
700	218,0-224,0	720	600	240	0,0-246	,0	100	130,0-1	70,0	300	27,0-33
C-Nr.	4 394 176										

212,0-218,0 100 130,0-170,0 300 19,0-25,0 240,0-246,0

213,0-219,0

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C. Se	ttings for Fu	el Injection	Pum	p with Fitte	d Go	vernor		
Full-load of Control-ro	d stop	<u> </u>	Fuel delin	very characteristics (56)	idie	fuel delivery 6	Low id	le speed 5
Test oil ter	np. 40°C (104°F) (2)	intermediate speed			switchin			Control rod travel
rev/min	cm³/1000 strokes		rev/min	cm ³ /1000 strokes	rev/min 6	cm ³ /1000 strokes	rév/min 8	9 9
 	2	3	-	•	-		8	
AC-Nr.	4 394 246			•				
1050	211,0-220,0	1055-1075	975 700 600	237,5-247,0 258,5-269,5 255,5-266,0	5	130,0-170,0	300	19,0-25
Adjust	stop part posi stop part po							
	4 394 248	700			400	420 0 470 0		40 0 05
700 600	246,0 263,0	720			100	130,0-170,0	300	19,0-25,
AC-Nr.	4 394 250							
1050	244,5-254,5	1060-1080			100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 257							
600	258,0			•	100	130,0-170,0	300	27,0
AC-Nr.	4 394 314							
1050 900 700	246,0 240,0 267,0	1070			100	130,0-170,0	300	19,0-25,
	•							
AC-Nr. 1050	4 394 331	1070			4.00	120 0 170 0	200	40 0 05
900 700	241,0-247,0 265,0-271,0 268,0-274,0	1070			100	130,0-170,0	300	19,0-25,
AC-Nr.	4 394 332							
1050 900 700	268,0-274,0 274,0-280,0 280,0-286,0	1070			100	130,0-170,0	300	19,0-25,
AC-Nr.	4 394 347 .							
1050 900 700	269,0-275,0 281,0-287,0 293,0-299,0	1070			100	130,0-170,0	300	19,0-25,
AC-Nr.	4 394 348							
900	234,0-240,0 246,0-252,0 268,0-274,0	1070			100	130,0-170,0	300	19,0-25,
C-Nr.	4 394 349							
1050 900	208,0-214,0 230,0-236,0 260,0-266,0	1070			100	130,0-170,0	300	19,0-25,
C-Nr.	4 394 350							
900	262,0-268,0 279,0-285,0 289,0-295,0	1070			100	130,0-170,0	300	19,0-25,

ethias ioi Lr	iei mjection	Laub aith Litter Coachio	
			Clow idle speed

Control	d delivery -rod stop temp. 40°C (104°F) (2)	Breakaway	· (26) Hed	Fuel deli high idle t	rery characteristics (54) ipped (56)	Idle	fuel delivery 6	LOW 1d	e speed 5
rev/min	1 2 22	rev/min	•	rev/min	cm ³ /1000 strokes		cm³/1000 strokes	reiv/mın B	travel
		1			ř	-			
C-Nr 050 900 700	. 4 394 351 253,0-256,0 252,0-258,0 269,0-275,0	1070				100	130,0-170,0	300	19,0-25,
C-Nr.									
050 900 700	262,0-268,0 267,0-273,0 267,0-273,0	1070				100	130,0-170,0	300	19,0-25,
	4 394 353								
050 900 700	279,0-285,0 283,0-289,0 293,0-299,0	1070				100	130,0-170,0	300 1	19,0-25,
	4 394 354								
950 900 700	296,0-302,0 301,0-307,0 309,0-315,0	1070				100	130,0-170,0	300 1	9,0-25,
-Nr.	4 394 356								
150 100 100	246,0 240,0 267,0	1070				100	130,0-170,0	300 1	9,0-25,
-Nr.	4 394 386								
00	167,0-175,0	620				100	130,0-170,0	300 2	5,0
	4 394 390								
00 00	259,0-267,0 238,0-246,0	925				100	130,0-170,0	300 1	9,0-29,
-Nr.	4 394 428								
00 00	188,0-196,0 180,0-187,0	1025				100	130,0-170,0	300 2	5,0
-Nr.	4 394 473								
	189,0-197,0 185,0-193,0	875				100	130,0-170,0	325 30	0,0
-Nr.	4 394 501								
	175,0 158,0	925				100	130,0-170,0 3	800 19	9,0-25,0
Nr.	4 394 521								
	239,0-247,0 229,0-235,0	1025				100	130,0-170,0 3	00 25	5,0
Nr.	4 394 527								
	161,0 151,0	925				100	130,0-170,0 3	00 19	,0-25,0

	C. S	ettings for Fu	el Injectio	n Pum	p with Fitte	d Go	vernor			
	Full-toad Control-	I delivery	Breakaway (2	Fuel deli	very characteristics (5e)	Starting	fuel delivery 6	Low id	le speed 5	
	Test oil t	emp. 40°C (104°F) (2)	injermediale speed	~			ng point 		Control roo	4
	rev/min	cm ³ /1000 strokes	rev/min C	rev/min	cm ³ /1000 strokes	rev/min 6	cm³/1000 strokes	rev/min	mm 9	
		2		+	3	0			1	1
	AC-Nr	. 4 394 541								
	1050	202,0-210,5	1060-1080	l		100	130,0-170,0	300	19,0-25	,0
	AC-Nr	. 4 394 550								
	1000	230,5-239,5	1010-1030			100	130,0-170,0	300	19,0-25	,0
	AC-Nr	. 4 394 561								
	1050	258,0	1060-1080			100	130,0-170,0	300	19.0-25	.0
	900	256,0							,	, •
	AC-Nr.	. 4 394 564								
	1050	244,0	1070			100	130,0-170,0	300	19,0-25	,0
	900	234,0								
		. 4 394 569								
	1000	203,0-211,5	1010-1030		•	100	130,0-170,0	300	19,0-25	,0
	AC-Nr.	4 394 590								
	1050	260,5-271,0	1060-1080				130,0-170,0			-
	Beginr be "0	ning of movemen 20".	t: 0,40 - 0	,45 bar	at 750 PRM a	nd 0,	90 bar pressu	re, q	gap shou	1d
		4 394 593	•							
	1050	251,5-261,5	1060-1080			100	130,0-170,0	300	19.0-25.	n
	AC-No	4 394 703					,		,0,	, 0
	1050	260,5-271.0	1060-1080	900	267.0-278.0	100	130,0-170,0	300	10 0-25	٥
				700	267,0-278,0					
	obtair	stop part posit n mean curve ab	ove. Beginn	ing of						
	-	ressure, gap sh	ould be "02	0".						
4	AC-Nr.	4 394 705 4 394 706								
	1050	258,0	1060-1080			100	130,0-170 3	300	19,0-25,	n
	900	256,0							,,	•
1	AC-Nr.	4 394 707								
•	1050 900	244,0	1070	•		100	130,0-170,0	300	19,0-25,	0
		234,0								
ļ		4 394 718								
	955 800	198,0-213,0 196,0-210,0	965-975			100	130,0-170,0	300 2	21,0-27,	0
		4 394 719								
	875	166,0-168,0	915	•		400	420 0 470 0			_
	600	142,5-146,5	313			100	130,0-170,0	300 Z	(1,0-27,	0
A	IC-Nr.	4 394 733								
		255,0-261,0	1020			100	130,0-170,0	300 ±	9 0-25	n
	800	272,0-278,0 270,0-276,0						I	J,U-23,(5
•		-/V3U-2/U3U	T	setai	I-ISO 4	119				

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C.	Settings f	or Fuei	injection	Pump with	Fitted	Governor
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delivery rod stop	Breakaway 20	Fuel deli-	very characteristics 58	Starting Idle	fuel delivery 6	Low idl	e speed 5
	intermediate speed						Control rod
	rev/min 🔾	rev/min	1		cm ³ /1000 strokes		9
208,0-218,0	1030-1040						
. 4 394 744							
250,0 256,0	1060-1080			100	130,0-170,0	300	19,0-25
. 4 394 745							
208,0-214,0 196,0-202,0	990			100	130,0-170,0	300 2	21,0-27,
4 394 746							
161,0-165,0 140,0-144,0	890			100	130,0-170,0	300	19,0-25
4 394 771			•				
113,0-119,0 102,0-108,0	820			100	130,0-170,0	300 1	19,0-25,
4 394 773							
125,0-131,0 134,0-140,0	820			100	130,0-170,0	300 1	9,0-25,
4 394 775							
192,0-198,0 180,0-186,0	1045			100	130,0-170,0	300 1	9,0-25,
4 394 777							
200,0-206,0 180,0-186,0 189,0-195,0	1020			100	130,0-170,0	300 1	9,0-25,
4 394 779							
185,0-195,0	955-65	•		100	130,0-170,0	300 1	9,0-25,
4 394 781							
230,0-236,0 207,0-213,0 209,0-215,0	1049	٠		100	130,0-170,0	300 1	9,0-25,
4 394 783							
227,0-233,0 197,0-203,0	1020			100	130,0-170,0	300 1	9,0-25,0
4 394 785		•			•		
235,0-241,0	1020			100	130,0-170.0	300 19	9.0-25.0
263,0-269,0							-,,\
	cm ³ /1000 strokes 2 cm ³ /1000 strokes 2 2 2 3,0-226,0 208,0-218,0 4 394 744 250,0 256,0 4 394 745 208,0-214,0 196,0-202,0 4 394 746 161,0-165,0 140,0-144,0 4 394 771 113,0-119,0 102,0-108,0 4 394 775 192,0-198,0 134,0-140,0 4 394 777 200,0-206,0 180,0-186,0 189,0-195,0 4 394 779 185,0-195,0 4 394 781 230,0-236,0 207,0-213,0 209,0-215,0 4 394 783 227,0-233,0 197,0-203,0 4 394 785 235,0-241,0 1 394 785	Comp. 40°C (104°F) 2	Cm ³ /1000 strokes Cm ³ /1	Contemp. 407C (104%) 20	Tage 201 (100 Strokes 100 St	Control of Critical Property Critical Prop	Control Cont

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C.	Settings	for Fuel	Injection	Pump with	Fitted	Governor
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Full-load d	d stoo	Breakaway	(26)	Fuel delin	rery characteristics (54 peed (56)	IGHE	_	Low idle speed 5		
Test oil ter	np. 40°C (104°F) (2)	intermediate ape				awitchin	g point		Control rod travel	
rev/min	cm ³ /1000 strokes	rev/min	•	rev/min	cm ³ /1000 strokes		cm³/1000 strokes	rev/min 8	mm	
1	2	3		 	5	6		1	 	
C-Nr.	4 394 787									
000	220,0-226,0	1020				100	130,0-170,0	300	19,0-25	
800	209,0-215,0	1020								
600	227,0-233,0									
C-Nr.	4 394 789								•	
910	190,0	930				100	130,0-170,0	300	25,0	
	4 394 791	020				100	130,0-170,0	300	19.0-25.	
900 700	160,0-166,0 139,0-145,0	920				100	130,0-170,0	, 500	15,0 25	
	4 394 793	600				100	130.0-170.0	300	19 0-25	
600	124,0-130,0	620				100	130,0-170,0	, 500	1950-29	
C-Nr.	4 394 795				•					
700	127,0-133,0	720				100	130,0-170,0	300	19,0-25	
600	124,0-130,0									
IC-Nr.	4 394 797									
800	139,0-145,0	820				100	130,0-170,0	300	19,0-25	
600	124,0-130,0									
C-Nr.	4 394 799									
925	157,0-163,0	945				100	130,0-170,0	300	19,0-25	
800	145,0-151,0									
600	134,0-140,0									
C-Nr.	4 394 801									
	180,0-186,0	1020				100	130,0-170,	300	19,0-25	
	154,0-160,0 142,0-148,0									
	4 394 803					400	400 0 470 (40 0 05	
	207,0-213,0 161,0-175,0	1070				100	130,0-170,0	300	19,0-25	
	147,0-153,0									
C-Nr	4 394 805									
900	187,0-193,0	920				100	130,0-170,0	300	27.0-33	
700	162,0-168,0	320				.00	10030 1703	, 099	,0 00	
C No-	A 20A 907									
	4 394 807	000				100	120 0_170 () · 200	27 N <u>-</u> 22	
900 700	200,0-206,0	920				100	130,0-170,0	300	6/ ₃ 0~33	
C-Nr.	4 394 809					100	130,0-170,0			
900	203,0-209,0	920								

C. Settings for Fuel Injection Pump with Fi	tted Governor
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Full-load o		Breakaway	(26)	Fuel deli	very characteristics (50	Starting i	fuel delivery (6)		e speed 5
Control-ro Test oil te	nd stop mp. 40°C (104°F) (2)	intermediate apor	_ ·	high idle s	meed (3)	switchin			Control roo
rev/min	cm³/1000 strokes	rev/min	•	rev/min	cm³/1000 strokes	rev/min	cm³/1000 strokes	reiv/min	travel mm
1	2	3		4	5	6	7	8	9
		1	1			1 1	,	•	
C-Nr.	4 394 811								
750 600	185,0-191,0 222,0-228,0	770				100	130,0-170,0	300	19,0-25
IC-Nr.	4 394 813								
800 600	210,0-218,0 223,0-229,0	820				100	130,0-170,0	300	19,0-25
C-Nr.	4 394 815								
900 700	222,0-228,0 202,0-208,0 207,0-213,0	1070				100	130,0-170,0	300	19,0-25
C-Nr.	4 394 817	·							
000 800 600	240,0-246,0 224,0-230,0 237,0-243,0	1020			·	100	130,0-170,0	300	19,0-25
C-Nr.	4 394 819								
050 900 700	245,0-251,0 224,0-230,0 237,0-243,0	1070				100	130,0-170,0	300	19,0-25
C-Nr.	4 394 821								
000 800 600	217,0-223,0 197,0-203,0 219,0-225,0	1020				100	130,0-170,0	300	19,0-25
C-Nr.	4 394 823								
900 700	210,0-216,0 212,0-218,0	920				100	130,0-170,0	300	27,0-33
C-Nr.	4 394 825								
050 900 700	269,0-275,0 281,0-287,0 293,0-299,0	1070				100	130,0-170,0	300	19,0-25
C-Nr.	4 394 827								
050 900 700	234,0-240,0 246,0-252,0 268,0-274,0	1070				100	130,0-170,0	300	19,0-25
C-Nr.	4 394 829								
050	262,0-268,0 279,0-285,0 289,0-295,0	1070				100	130,0-170,0	300	19,0-25
C-Nr.	4 394 831								
	241,0-247,0 265,0-271,0	1070				100	130,0-170,0	300	19,0-25

C.	Settings	for Fuel In	jectio	n Pum	p with	Fitted	Governor

-17-

	ad delivery N-rod slop	Breakaway	②	Fuel delin	rery characteristics (5)	Startin	g fuel delivery 6	Low id	le speed 5
	temp. 40°C (104°F) (2	intermediate so			(3)		ning point		Control rod travel
rev/m		rev/min	4	rev/min	cm³/1000 strokes	rev/mi	n cm³/1000 strokes	rev/mu	mm
1-	2	3		 	5	6	 	8	9
A.C. No.	4 204 022								
	. 4 394 833								
900 700	232,0-238,0 253,0-259,0	920				100	130,0-170,0	300	19,0-25,0
AC-Nr	. 4 394 835								•
750 700	244,0-250,0 253,0-259,0	770				100	130,0-170,0	300	19,0-25,0
AC-Nr	. 4 394 837								
800 600	239,0-245,0 248,0-254,0	820				100	130,0-170,0	300	19,0-25,0
AC-Nr.	. 4 394 839								
1000	212,0-218,0	1020				100	130,0-170,0	300 4	10 0-25 0
800	230,0-236,0						100,0 170,0	300	19,0-29,0
AC-Nr.	. 4 394 841								
900 700	288,0-294,0 287,0-293,0	920				100	130,0-170,0	300 2	27,0-33,0
AC-Nr.	4 394 843								
1000	255,0-261,0	1020				100	130,0-170,0	300 1	9.0-25.0
800 600	272,0-278,0 270,0-276,0						,		J,0-2J,0
AC-Nr.	4 394 845	•							
1050 900 700	239,0-245,0 233,0-239,0 273,0-279,0	1070				100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 847								
1000	215,0-221,0	1020				100	130,0-170,0	300 1	9.0-25 N
800 600	197,0-203,0 220,0-226,0						,,.,.		J,0-2J,0
AC-Nr.	4 394 849								
900 700	222,0-228,0 254,0-260,0	920 .				100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 851								
1050 750	257,0-263,0 272,0-278,0	1070				100	130,0-170,0 3	300 2	7,0-33,0
AC-Nr.	4 394 853								
1050 900	295,0-303,0 309,0-315,0	1075				100	130,0-170,0 3	300 2	5,0
\C-Nr.	4 394 857								
1050 900	262,0-268,0 267,0-273,0	1070				100	130,0-170,0 3	100 19	9,0-25,0

H9

-18-

Full-load		Breakaway	ay 20 Fuel delivery cherecteristics 56			istics(5a)	Starting	fuel delivery (6)	Low idle speed	
Control-r Test Oil to	od stop emp. 40°C (104°F) (2)	intermediate spr	med .	high idle (peed ®		idle switchir	_		Control rea
rev/min	cm³/1000 strokes	rev/min	•	rev/min	cm ³ /1000 str	okes	rev/min	cm³/1000 strokes	reiv/min	travel
3	2	3		4	5		6	7	8	9
										1
C-Nr.	4 394 861	•								
050 900 700	296,0-302,0 301,0-307,0 309,0-315,0	1070					100	130,0-170,0	300 1	19,0-25,
C-Nr.	4 394 863									
050 900 700	253,0-256,0 252,0-258,0 269,0-275,0	1070					100	130,0-170,0	300 1	19,0-25,
C-Nr.	4 394 865									
050 900 700	208,0-214,0 230,0-236,0 260,0-266,0	1070					100	130,0-170,0	300 1	19,0-25,
C-Nr.	4 394 867									
900 700	181,0-187,0 172,0-178,0	920					100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 869									
925 800 7 00	176,0-182,0 162,0-168,0 177,0-183,0	945					100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 871									
900 8 00	173,0-179,0 160,0-166,0	920					100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 873							•		
300	237,0-243,0 251,0-257,0 269,0-275,0	945					100	130,0-170,0	300 2	?7,0-33,
C-Nr.	4 394 875									
	218,0-224,0 240,0-246,0	720					100	130,0-170,0	300 2	7,0-33,
-Nr.	4 394 877	·								
900	213,0-219,0 212,0-218,0 240,0-246,0	1060-108	0				100	130,0-170,0	300 1	9,0-25,

Tilt stop part position to obtain quantity at 1050 PRM. Adjust stop part position to obtain mean curve above.

1055-1075

975 700 600

AC-Nr. 4 394 879

211,0-220,0

1050

H10

4.10

Testoil-ISO 4113

237,5-247,0 258,5-269,5 255,5-266,0

100 130,0-170,0 19,0-25,0

						•	•		
C	Settings '	for Fi	18	Inie	ction	Pump with	1	Fitted Governor	
-	TT SELLIF					A distant acces	•	- 11170	

-19-

Control	I delivery rod stop lemp. 40°C (104°F) (2)	Breakaway 20	Fuel delic	very characteristics (se	Starting idle awitchir		Low id	lle speed 5
rev/min	cm³/1000 strokes	rev/min 4	rev/min	cm ³ /1000 strokes		cm³/1000 strokes	reiv/mir	travel
1	2	3	4	5	6	7	8	10-
AC-Nr.	4 394 881							
700 600	246,0 263,0	720			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 883							
1050	244,5-254,5	1060-1080			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 885							
600	258,0				100	130,0-170,0	300	27,0
AC-Nr.	4 394 891							
600	167,0-175,0	620			100	130,0-170,0	300	25,0
AC-Nr.	4 394 893							٠
900 700	259,0-267,0 238,0-246,0	925			100	130,0-170,0	300	19,0-29,0
	4 394 895							
1000	188,0-196,0	1025			100	130,0-170,0	300	25.0
800	180,0-187,0							
AC-Nr.	4 394 897					,		
850 750	189,0-197,0 185,0-193,0	875			100	130,0-170,0	325	30,0
AC-Nr.	4 394 899		•					
900 700	175,0 158,0	925			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 905							
1000 700	239,0-247,0	1025			100	130,0-170,0	300	25,0
	229,0-235,0 4 394 907							
900	161,0	925 ·			100	130,0-170,0	300	19,0-25,0
800 Beginn	151,0 ing of movement	t: 0,40 - 0,4	5 bar	at 750 PRM ar	nd			
•	ar pressure, ga	ap should be	"020".					
050	4 394 909 202,0-210,5	1060-1080			100	120 0 170 0	200 /	
		1000-1000			100	130,0-170,0	300	13,0-25,0
	4 394 911 230,5-239,5	1010-1030			100	120 0-470 0	200 4	10 0 05 0
		1010-1030			100	130,0-170,0	3UU]	13,0-25,0
	4 394 915	1010-4020			400	120 0 170 0	000 -	
000	203,0-211,5	1010-1030			100	130,0-170,0	300 1	19,0-25,0

H11

Full-load de Control-roc	1 6100		Fuel deli- high idle s		FCR8	•	Low id)	e speed 5
Test on ten	np. 40°C (104°F) (2)	menting appear			awitchin	g point		Control rod
tes/um	cm ³ /1000 strokes	rev/min 40	rev/min	cm³/1000 strokes	rev/min	cm³/1000 strokes	rev/min	travei mm
1	2	3	4	5	6	7	8	9

-20-

AC-Nr. 4 394 917

260,5-271,0 1060-1080 1050

100 130,0-170,0 300 19,0-25,0

Beginning of movement: 0,40 - 0,45 bar at 750 PRM and

0,90 bar pressure, gap should be "020".

AC-Nr. 4 394 919

1050 215,5-261,5 1060-1080

100 130,0-170,0 300 19,0-25,0

AC-Nr. 4 394 921

1050 260,5-271,0 1060-1080 900

267,0-278,0 100 130,0-170,0 300 19,0-25,0

700 267,0-278,0

Tilt stop part position to obtain quantity at 1050 PRM. Adjust stop part position to obtain mean curve above. Beginning of movement: 0,40 - 0,45 bar at 750 PRM and 0,90 bar pressure, gap should be "020".

AC-Nr. 4 394 925

1050 244,0 1070

100 130,0-170,0 300 19,0-25,0

900 234,0

AC-Nr. 4 394 997

900 173,0-179,0 160,0-166,0 800

920

100 130,0-170,0 300 19,0-25,0

Festoil-ISO 4113

Test Specifications Fuel Injection Pumps ① and Governors

WPP 001/4 ALO 16,0 c

En

PE 6 P 120/420 LS 152 0 401 846 242; 0 401 846 243

RQV 300...800 PA 175 KR

supersedes

companyAllis-Chalmers

Values only apply to test nozzle-and-holder assembly 0 681 443 022 and fuel-injection test tubing 9 681 230 703.

All test specifications are valid for Bosch Fuel Injection Pump Test Benches and Testers

A. Fuel Injection Pump Settings

Port closing at prestroke

2,8 + 0,1

mm (from BDC)

Rotational speed	Control rod travel	Fuel delivery cm ³ /100 strokes 3	Difference cm ³ / 100 strokes 4		Fuel delivery cm ³ /100 strokes 3	Spring pre-tensioning (torque-control valve) mm 6
1000	12	26,4 - 27,1			1,0	
600	6 12	8,6 - 9,8 26,3 - 28,2				
200	15 6	33,8 - 36,2 4,2 - 5,2				

Adjust the fuel delivery from each outlet according to the values in

B. Governor Settings

Upper rated 8	peed		Intermediate	rated sp	bed	Lower rated	speed		Sliding s	leeve travel
Degree of deflection of control	rev/min Control rod travel	Control rod travel mm rev/min 28	of control	rev/min 5	Control rod travel mm 4	Degree of deflection of control lever 7	rev/min 8	Control rod travel mm 3	rev/min 10	mm 11
66°	875 900 980 1060	15,0-17,6 12,9-15,4 3,2-8,0 0				10°	120 200 350 550	6,3-8,0 4,9-7,1 1,7-3,1 0		

Torque control travel a =

mm

C. Settings for Fuel Injection Pump with Fitted Governor

Full-load de Control-red Test oil ten	stop np. 40°C (104°F) 2	Rotational-speed (2b) Fuel delivery characteristics (5th high idle speed (5b) intermediate speed (4a) rev/min cm³/1000 strokes		Starting Idle switchir rev/min	ng point	Torque-control (stravel Control retravel rev/min mm		
	2	3	4	5	6	7	8	9
-	-							
					l			
					1		1	
				1	1		İ	
					l			
			1		ĺ	•	1	
1					<u> </u>		<u> </u>	

Chacking values in brackets

* 1 mm less control rod travel than col. 2

C. Settings for Fuel In	jection Pump with	Fitted Governor
-------------------------	-------------------	------------------------

Full-los Contro	id delivery Frod stop Lemp. 40°C (104°F) (2)	Breakaway (20)	Full-load (delivery 2 od stop mp. 40°C (104°F)	Starting I	juel delivery 6	Low 'id	Control rod
revirou		rev/min 4	rev/min	cm³/1000 strokes	nev/min	cm³/1000 strokes	rev/mu	travel
1	2	3	 	2	6	7	8	9
A.C. Also	4 220 754							
1025	4 320 754 91,0- 93,0	1040	700	00 0 102 0	100	00 0 400 0	200	40 0 05 0
		1040	700	99,0-103,0	100	90,0-130,0	300	19,0-25,0
_	4 320 793	4000						
1000	122,0-124,0	1020	700	126,0-130,0	100	90,0-130,0	300	19,0-25,0
AC-Nr.	4 320 815							
900	100,0-106,0		700 600	101,0-107,0 111,0-117,0	100	90,0-130,0	300	19,0-25,0
40.41			000	111,0-117,0				
	4 320 816	040 000	000	00 0 404 0	400			
900	97,0-103,0	910-920	800	98,0-104,0	100	90,0-130,0	300	19,0-25,0
	4 320 817							
1100	139,0-143,0		800 600	149,0-154,0 153,0-161.0	100	90,0-130,0	375	9,0-19,0
80 No.	4 000 000	· ·		100,0 101,0				
	4 320 829	1120	000	140 0 454 0	400	00 0 400 0		
1100	139,0-143,0		800 500	149,0-154,0 153,0-161,0	100	90,0-130,0	3/5	9,0-19,0
AC-Nr.	4 320 933							
900	102,0-110,0	1040	300	107,0-116,0	100	90,0-130,0	300	25,0
						30,0 100,0	000	23,0
900	4 320 939 98,5 + 3	1040	700	107,5 + 4	400	00 0 420 0	200	05.0
	_	1040	700	107,5 + 4	100	90,0-130,0	300	25,0
	4 320 940							
900	78,0- 86,0	1040	700	100,0-109,0	100	90,0-130,0	300	25,0
AC-Nr.	4 320 941							
1025	91,0- 93,0	1040	700	99,0-103,0	100	90,0-130,0	300 1	19,0-25,0
AC-Nr.	4 320 942							•
1000	122,0-124,0	1020	00	126,0-130,0	100	90,0-130,0	300 1	19,0-25,0
AC-Nr.	4 320 980							
900	108,0-116,0	1120 8	100	•	100	90,0-130,0	375	9.0-19.0
AC-Nr.	4 320 981							
900	111,0-119,0	1020 8	00	112,0-118,0	100	90,0-130,0	300	25,0
	•			,0,0	100	30,0130,0	500	23,0
	4 321 016	1020 7	ΕΛ	05 0 40% 0	400	00 0 400 0		
750	95,0-101,0	1020 7	50	95,0-10%,0	100	90,0-130,0	300	25,0
	4 321 064	4000		***				
1000	112,0	1030 8	00	112,5	100	90,0-130,0	300	25,0

				p with Fitte			Low idl	e speed 5)
Full-load Control-n	DOJ atop	Breakaway (2	Control+re		Starting I idle switchin	uel delivery (6) a point		Control rod
restonin	Imp. 40°C (104°F) (2)	rev/min	. .	cm³/1000 strokes	rev/min	cm ³ /1000 strokes	reiv/men	travel
1	2	3	1	2	6	7	8	9
		1	•	1	1			ı
C-Nr.	4 359 816							
900	100,0-106,0	910-920	700 600	101,0-107,0 111,0-117,0	100	90,0-130,0	300	19,0-25
C-Nr.	4 359 826							
900	97,0-103,0	910-920	800	98,0-104,0	100	90,0-130,0	300	19,0-25
C-Nr	4 359 828							
100	139,0-143,0	1120	800	149,0-154,0	100	90,0-130,0	375	9.0-19
100	100,0	• • • • • • • • • • • • • • • • • • • •	600	153,0-161,0				,
C-Nr.	4 359 830							
025	91,0- 93,0	1040	700	99,0-103,0	100	90,0-130,0	300	19,0-25
	-							
•	4 359 832	1020	700	126,0-130,0	100	90,0-130,0	300	19.0-25
000	122,0-124,0	1020	700	120,0-130,0	100	30,0 130,0	. 500	13,0 23
	4 392 693			467 0 477 0	400	400 0 470 0		40 0 05
050	205,0-215,0	1065-80	900	167,0-177,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 695							
900	149,0-155,0	920	-	-	-	-	300	19,0-25
C-Nr.	4 392 697							
750	185,0-191,0	770	600	222,0-228,0	100	130,0-170,0	300	19,0-25
	•							
	4 392 699	920	600	223,0-229,0	100	130,0-170,0	300	10 0-25
800	210,0-218,0	820	600	223,0-229,0	100	130,0-170,0	300	13,0-23
C-Nr.	4 392 701							
900	203,0-209,0	920	700	209,0-215,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 703							
050	220,0-230,0	1060-70	900	200,0-210,0	100	130,0-170,0	300	19,0-25
			700	205,0-215,0				
C-Nr.	4 392 707							
050	243,0-253,0	1060-80	900	222,0-232,0	100	130,0-170,0	300	19,0-25
			700	235,0-245,0				
C-Nr.	4 392 709							
000	217,0-223,0	1020	800	197,0-203,0	100	130,0-170,0	300	19,0-25
			600	219,0-225,0				
C-Nr.	4 392 711							
600	231,0-237,0	620	-	~	-	-	300	19,0-25

^	Callings	for Fred In	tackton Man		And Passa	
	Settings	tor ruei m	lection Puit	ib with Fit	TAG LSLIV	
•			jection Pur	alle annous a sa		

Full-toad Control- Test oil to		Breakaway Intermediate spe	Cont	oad delivery rol-rod stop bil temp. 40°C (104°F)	Starting kile switching	fundelivery 6	Low idle speed 5		
rev/mun	cm ³ /1000 strokes	rev/min	revin		rev/min	cm³/1000 strokes	rev/min	travel mm	
1	2	3		2	6	7	8	9	
	4 392 715	1070	900	174,0-180,0	100	130,0-170,0	200	10 0-25	
1050	187,0-193,0	1070	700	175,0-181,0		130,0-170,0	300	13,0-23	
AC-Nr.	4 392 717								
1050	224,0-230,0	1070	800	185,0-191,0	100	130,0-170,0	300	19,0-25	
AC-Nr.	4 392 719								
1050	200,0-206,0	1070	900	190,0-196,0		130,0-170,0	300	19,0-25	
	•		700	214,0-220,0	,				
	4 392 721								
1050	242,0-248,0	1070	900 700	220,0-226,0 230,0-236,0		130,0-170,0	300	19,0-25	
IC-Nr.	4 392 723								
750	244,0-250,0	770	700	253,0-259,0	100	130,0-170,0	300	19,0-25	
C-Nr.	4 392 725								
800	239,0-245,0	820	600	248,0-254,0	100	130,0-170,0	300	19,0-25	
C-Nr.	4 392 727								
900	232,0-238,0	920	700	253,0-259,0	100	130,0-170,0	300	19,0-25	
C-Nr.	4 392 729								
000	212,0-218,0	1020	800	230,0-236,0	100	130,0-170,0	300.	19,0-25	
IC-Nr.	4 392 731								
900	288,0-294,0	920	700	287,0-293,0	100	130,0-170,0	300	27,0-33	
IC-Nr.	4 392 735								
050	239,0-245,0	1070	900	233,0-239,0		130,0-170,0	300	19,0-25	
			700	273,0-279,0	,				
	4 392 737	1000	000	107 0 202 0	400	120 0 170 0	200	40 0 05	
000	215,0-221,0	1020	800 600	197,0-203,0 220,0-226,0		130,0-170,0	300	19,0-25	
C-Nr.	4 392 739								
050	207,0-213,0	1050	900	195,0-201,0		130,0-170,0	300	19,0-25	
			700	225,0-231,0					
	4 392 741			AA					
050	213,0-219,0	1070	900 700	202,0-208,0 230,0-236,0		130,0-170,0	•	-	
C-Nr.	4 392 743			·					
050	220,0-226,0	1070	900	210,0-216,0	100	130,0-170,0	300	19.0-25	
300			700	243,0-249,0		,,0		, 0 - 50	

C. Settings for Fuel Injection Pump with Fitted Governor

Control	I delivery rod stop emp. 40°C (104°F) (2)	Breakaway		b baol·liu ortotro net lie tee	elivery 2 d stop np. 40°C (104°F)	Starting i Idle awitchin	fuel delivery 6	Low id	le speed 5
rev/min	cm³/1000 strokes		_ [Iv/min	cm³/1000 strokes		cm³/1000 strokes	rév/mu	1
1-	2	3	+	···	2	6	7	8	9
AC No	4 392 747								
1050	227,0-233,0	1070	9(00	208,0-214,0	100	130,0-170,0	300	19.0-25.0
	22.,0			00	247,0-253,0				
AC-Nr.	4 392 749								
1050	230,0-234,0	1070	-		-	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 392 750								
1050	230,0-234,0	1070	-		-	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 392 768								
800	123,0-133,0	820	60	00	132,0-142,0	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 392 775/776								
875	162,0-164,0	890	60	00	140,0-144,0	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 392 777								
950	205,0-207,0	970	70	00	195,0-199,0	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 392 778								
950	208,0-214,0	990	75	50	196,0-202,0	100	130,0-170,0	300	21,0-27,0
AC-Nr.	3 392 779								
1025	190,0-200,0	1030-40	100		191,0-201,0	100	130,0-170,0	300	19,0-25,0
			90	10	178,0-188,0				
	4 392 781	1050 60	•		0.5 5 645 6	400	400 0 470 0		
1025	228,0-238,0	1050-60	90 70		205,0-215,0	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 392 953								
940	185,0-195,0	955-65	-		•	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 393 095								• • • • • • • • • • • • • • • • • • • •
1050	211,0-221,0	1060-80	90	0	210,0-220,0	100	130,0-170,0	300	19.0-25.0
	•		70		238,0-248,0				
AC-Nr.	4 393 307								
900	210,0-216,0	920	70	0	212,0-218,0	100	130,0-170,0	300	27,0-33,0
AC-N .	4 393 431								
105/	208,0-214,0	1070	90 70		230,0-235,0 260,0-266,0	100	130,0-170,0	300	19,0-25,0
AC N	A 202 024		, 0	•					
1050	4 393 821 242,0-248,0	1070	90	Ω .	220,0-226,0	100	130,0-170,0	ፈ ሀሀ (10 N-25 N
	-16,0 610,0		70		230,0-236,0	.00	.00,0 170,0	500	17,0-65,0

Control	delivery rod slop		Full-toa Control	rod ston	Idle	fuel delivery (6)	Low idle speed 5	
rest out	cm ³ /1000 strokes		(av/min	temp. 40°C (104°F) cm ³ /1000 strokes		cm³/1000 strokes	reiv/mu	Control rod travel
1	2	3		2	6	7	8	9
1		1			Į	(ł	1
AC-Nr.	4 393 823		۲)					
1050	187,0-193,0	1070	900 700	174,0-180,0 175,0-181,0	100	130,0-170,0	300	19,0-25,
AC-Nr.	4 393 825							
1050	224,0-230,0	1070	800	185,0-191,0	100	130,0-170,0	300	19,0-25,
AC-Nr.	4 393 827							
1050	200,0-206,0	1070	900 700	190,0-196,0 214,0-220,0	100	130,0-170,0	300	19,0-25,
AC-Nr.	4 393 829							
1050	230,0-234,0	1070	-	-	100	130,0-170,0	300	19,0-25,
AC-Nr.	4 393 831							
1050	213,0-219,0	1070	900 700	202,0-208,0 230,0-236,0	100	130,0-170,0	-	•
C-Nr.	4 393 833							
050	264,0	1060-1080	900	280,5	100	130,0-170,0	300	19,0-25,
C-Nr.	4 393 835							
050	220,0-226,0	1070	900 700	210,0-216,0 243,0-249,0	100	130,0-170,0	300	19,0,25,
IC-Nr.	4 393 837		•	,				
050	227,0-233,0	1070	900 700	208,0-214,0 247,0-253,0	100	130,0-170,0	300`	19,0-25,
C-Nr.	4 393 890			•				
950	208,0-214,0	990	750	196,0-202,0	100	130,0-170,0	300	21,0-27,
C-Nr.	4 393 891							•
955	208,0	965-975	895	203,0	•		,	-
C-Nr.	4 393 961							
900	181,0-187,0	920	700	172,0-178,0	100	130,0-170,0	300	19,0-25,0
C-Nr.	4 394 001							
	218,0-224,0	720	600	240,0-246,0	100	130,0-170,0	300 :	27 N_22 (
	4 394 017			210,0		100,0 170,0	000 8	-/,0-00,0
	208,0-214,0	990	750	196,0-202,0	100	130 0-170 0	200 4	21 0 07 1
		330	, 50	12090-60690	100	130,0-170,0	300 Z	21,0-2/,(
	4 394 020	725	600	250 0 254 2	400	400 0 400 0	•••	
700	249,0-257,0	725	600	258,0-264,0	100	130,0-170,0	300 1	19,0-29,0

C. Settings fo	or Fuel Injection	Pump with I	Fitted Governor
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Full-toi Contro	Full-toad delivery Control-rod stop			Full-load Control-n	delivery (2)	Starting	Auel delivery 6	Low idle speed 3	
	temp. 40°C (104°F) (2)	intermediate ape	w_	lest oil te	mp. 40°C (104°F)	switchi	ng point		Control rod
rev/mu	i cm³/1000 strokes	rev/min 3	(9)	rev/min I	cm³/1000 strokes	rev/min	cm³/1000 sirokes	rev/mi	
-						1	f	1	+
AC-Nr	- 4 394 062								
800	113,0-119,0	820	6	00	102,0-108,0	100	130,0-170,0	300	19,0-25,0
AC-Nr	. 4 394 064								
875	161,0-165,0	890	6	00	140,0-144,0	100	130,0-170,0	300	19,0-25,0
AC-Nr	. 4 394 066								
800	125,0-131,0	820	6	00	134,0-140,0	100	130,0-170-0	300	19,0-25,0
AC-Nr	. 4 394 068								
1025	192,0-198,0	1045	9	00	180,0-186,0	100	130,0-170,0	300	19,0-25,0
AC-Nr	4 394 070								
1000	200,0-206,0	1020		00 00	180,0-186,0 189,0-195,0	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 072								
940	185,0-195,0	955-65			•	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 074								
1025	230,0-236,0	1040	90 70		207,0-213,0 209,0-215,0	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 076								
1000	227,0-233,0	1020	80	0	197,0-203,0	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 078						•		
1000	235,0-241,0	1020	70	0	263,0-269,0	100	130,0-170,0	300	19,0-25,0
	4 394 080								
1000	220,0-226,0	1020	80 60		209,0-215,0 227,0-233,0	100	130,0-170,0	300	19,0,25,0
AC-Nr.	4 394 082								
910	190,0	930	-		-	100	130,0-170,0	300 2	25,0
AC-Nr.	4 394 084								
900	160,0-166,0	920	70	0	139,0-145,0	100	130,0-170,0	300 1	19,0-25,0
	4 394 086								
600	124,0-130,0	620	•		-	100	130,0-170,0	300 1	9,0-25,0
	4 394 088								
700	127,0-133,0	720	600)	124,0-130,0	100	130,0-170,0	300 1	9,0-25,0
	4 394 090	000		_	100 0 :==				
800	139,0-145,0	820	600	, 1	124,0-130,0	100	130,0-170,0	300 1	9,0-25,0

Control	d delivery rod stop temp. 40°C (104°F) (2	Breakaway	Control	Control-rod stop		fuel delivery 6	Low idle speed 5		
revimin	1 1,000	rev/min	rev/min		rev/min	cm²/1000 strokes	reiv/min	travel mm	
1	2	3	11	2	6	7	8	9	
•	D	•	·						
AC-Nr.		• • •							
925	157,0-163,0	945	800 600	145,0-151,0 134,0-140,0	100	130,0-170,0	300 1	9,0-25,	
AC-Nr.	4 394 094								
1000	180,0-186,0	1020	800 700	154,0-160,0 142,0-148,0	100	130,0-170,0	300 1	9,0-25,	
AC-Nr.	4 394 096								
1050	207,0-213,0	1070	900 800	161,0-175,0 147,0-153,0	100	130,0-170,0	300 1	9,0-25,	
AC-Nr.	4 394 098								
900	187,0-193,0	920	700	162,0-168,0	100	130,0-170,0	300 2	7,0-33,	
AC-Nr.	4 394 100								
900	200,0-206,0	920	700	184,0-190,0	100	130,0-170,0	300 2	7,0-33,	
AC-Nr.	4 394 102								
900	203,0-209,0	920	700	209,0-215,0	100	130,0-170,0	300 1	9.0-25.	
	4 394 104			200,0 200,0		,.		,, c LJ,	
750	185,0-191,0	770	600	222,0-228,0	100	130,0-170,0	200 4	0 0 25	
		770	000	222,0-220,0	100	130,0-170,0	300 1	9,0-25,	
	4 394 106	020	500	222 4 220 4	400	420 0 470 0	222 4		
800	210,0-218,0	820	600	223,0-229,0	100	130,0-170,0	300 1	9,0-25,	
	4 394 108								
1050	222,0-228,0	1070	900 700	202,0-208,0 207,0-213,0	100	130,0-170,0	300 1	9,0-25,	
C-No	4 394 110								
1000	240,0-246,0	1020	800	224,0-230,0	100	120 0 170 0	200 4		
1000	240,0-240,0	1020	600	237,0-243,0	100	130,0-170,0	300 13	7,0-25,	
C-Nr.	4 394 112								
1050	245,0-251,0	1070	900	224,0-230,0	100	130,0-170,0	300 19	9.0-25.1	
			700	237,0-243,0				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
C-Nr.	4 394 114								
000	217,0-223,0	1020	800 600	197,0-203,0 219,0-225,0	100	130,0-170,0	300 19	,0-25,	
C-Nr.	4 394 116								
900	210,0-216,0	920	700	212,0-218,0	100	130,0-170,0	300 27	,0-33,0	
C-Nr.	4 394 118								
050	269,0-275,0	1070	900	281,0-287,0	100	130,0-170,0	300 10	1.0-25 (
			700	293,0-299,0		,/0,0	JUU 13	,,u-23,l	

H20

Full-load delivery Control-rod stop				Full-toad delivery 2		Starting fuel delivery 6 Idle switching point		Low idle speed 5	
	mp. 40°C (104°F) (2)	rev/min					rev/min	Control rod travei 1 mm	
rev/miñ 1	2	3		1	2	6	7	8	9
			1					1	1
C-Nr.	4 394 120								
050	234,0-240,0	1070		900 700	246,0-252,0 268,0-274,0	100	130,0-170,0	300	19,0-25,
C-Nr.	4 394 122								
050	262,0-268,0	1070		900 700	279,0-285,0 289,0-295,0	100	130,0-170,0	300	19,0-25,
C-Nr.	4 394 124								
050	241,0-247,0	1070		900 700	265,0-271,0 268,0-274,0	100	130,0-170,0	300	19,0-25,
C-Nr.	4 394 126								
900	232,0-238,0	920	7	700	253,0-259,0	100	130,0-170,0	300	19,0-25,
C-Nr.	4 394 128								
750	244,0-250,0	770	7	700	253,0-259,0	100	130,0-170,0	300	19,0-25,
C-Nr	4 394 130								
800	239,0-245,0	820	e	500	248,0-254,0	100	130,0-170,0	300	19.0-25.
000	4 394 132 212,0-218,0	1020	9	300	230,0-236,0	100	130,0-170,0	300	19.0-25
		1020			230,0-230,0	100	10030 17030	500	15,0 25,
	4 394 134	000	_	•••	007 0 000 0	400	420 0 470 0	200	07 0 00
900	288,0-294,0	920	,	700	287,0-293,0	100	130,0-170,0	300	2/,0-33,
C-Nr.	4 394 136								
000	255,0-261,0	1020		300 500	272,0-278,0 270,0-276,0	100	130,0-170,0	300	19,0-25,
				,00	270,0 270,0				
	4 394 138	4070	,	200	222 0 220 0	400	120 0 170 0	200	10 0 25
050	239,0-245,0	1070		900 700	233,0-239,0 273,0-279,0	160	130,0-170,0	300	19,0-25,
C-N~	4 394 140								
000	215,0-221,0	1020	8	300	197,0-203,0	100	130,0-170,0	300	19,0-25.
	2.0,0 22.,0			00	220,0-226,0				
C-Nr.	4 394 142								
900	222,0-228,0	920	7	700	254,0-260,0	100	130,0-170,0	300	19,0-25,
C-Nr.	4 394 144								
050	257,0-263,0	1070	7	750	272,0-278,0	100	130,0-170,0	300	27,0-33.
	•				•				-
C-Nr. 050	4 394 148 295,0-303,0	1075	c	900	309,0-315,0	100	130,0-170,0	300	25 A

C. Se	C. Settings for Fuel Injection Pump with Fitted Governor									
Full-load (Control-ro Test oil te		Breakaway		Full-load Control-n Test oil te		Starting Idle switchin	fuel delivery 6	Low idle speed 3		
ten/tmu	cm ³ /1000 strokes	rev/min	•	rev/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	rëv/min	travel mm	
1	2	3		1	2	6	7	8	•	
AC-Nr.	4 394 150	•	•		•	•			•	
1050	268,0-274,0	1070		900 700	274,0-280,0 280,0-286,0	100	130,0-170,0	300	19,0-25	
AC-Nr.	4 394 152									
1050	262,0-268,0	1070		900 700	267,0-273,0 267,0-273,0	100	130,0-170,0	300	19,0-25	
AC-Nr.	4 394 154									
1050	279,0-285,0	1070		900 7 0 0	283,0-289,0 293,0-299,0	100	130,0-170,0	300	19,0-25,	
AC-Nr.	4 394 156									
1050	296,0-302,0	1070		900 700	301,0-307,0 309,0-315,0	100	130,0-170,0	300	19,0-25,	
AC-Nr.	4 394 158 4 394 157									
1050	253,0-256,0	1070		900 700	252,0-258,0 269,0-275,0	100	130,0-170,0	300	19,0-25,	
NC-Nr.	4 394 160									
050	208,0-214,0	1070		900 700	230,0-235,0 260,0-266,0	100	130,0-170,0	300	19,0-25,	
C-Nr.	4 394 162									
900	181,0-187,0	920	7	700	172,0-178,0	100	130,0-170,0	300	19,0-25,	
C-Nr.	4 394 164							•		
925	176,0-182,0	945		300 700	162,0-168,0 177,0-183,0	100	130,0-170,0	300	19,0-25,	
C-Nr.	4 394 166									
900	173,0-179,0	920	8	00	160,0-166,0	100	130,0-170,0	300	19,0-25,	
C-Nr.	4 394 168									
925	237,0~243,0	945		000	251,0-257,0 269,0-275,0	100	130,0-170,0	300	27,0-33,	
C-Nr.	4 394 170									
700	218,0-224,0	720	6	00	240,0-246,0	100	130,0-170,0	300	27,0-33,	
C-Nr.	4 394 176									
050	213,0-219,0	1070		00 00	212,0-218,0 240,0-246,0	100	130,0-170,0	300	19,0-25,	

AC-Nr. 4 394 246

1050 211,0-220,0

1055-1075

975 700

600

237,5-247,0

258,5-269,5 255,5-266,0

Tilt stop part position to obtain quantity at 1050 PRM. Adjust stop part position to obtain mean curve above.

AC-Nr. 4 394 248

700 246,0 600 263,0

720

130,0-170,0 300 19,0-25,0

100 130,0-170,0 300 19,0-25,0

-11-

AC-Nr. 4 394 250

1050 244,5-254,5 1060-1080

100 130,0-170,0 300 19,0-25,0

AC-Nr. 4 394 257

600 258,0 130,0-170,0 300 27,0

AC-Nr. 4 394 314

1050 246.0 900 240,0 700 267.0

1070

1070

100 130,0-170,0 300 19,0-25,0

AC-Nr. 4 394 331

1050 241,0-247,0 900 265,0-271,0 700

268,0-274,0

130,0-170,0 300 19,0-25,0

AC-Nr. 4 394 332

1050 268,0-274,0 900 274,0-280,0 1070

130,0-170,0 300 19,0-25,0

700 280,0-286,0

AC-Nr. 4 394 347

1050 269,0-275,0 281,0-287,0 900

1070

1070

100 130,0-170,0 300 19,0-25,0

700 293,0-299,0

AC-Nr. 4 394 348

1050 234,0-240,0 246,0-252,0 900

268,0-274,0

AC-Nr. 4 394 349 1050

700

900

1050

900

700

208,0-214,0 1070 230,0-236,0

130,0-170,0 300 19,0-25,0

130,0-170,0 300 19.0-25.0

700 260,0-266,0

AC-Nr. 4 394 350

262,0-268,0 279,0-285,0

289,0-295,0

1070

130,0-170,0 300 19,0-25,0

ry	Breakaway	(20) Fuel delivery characteristics	Starting fuel delivery	@lrom.	idle speed 5)	
	·	high ide ageed (a)	Idle		-	

<u> </u>	C. Settings for Fuel Injection Pump with Fitted Governor Full-load delivery Breakaway (20) Fuel delivery characteristics (5a) Starting fuel delivery (6) Low 1d1e speed 5)									
Control	Full-load delivery Control-rod stop			Fuel delin	very characteristics(peed (50)			rom 14	le speed 5	
	temp. 40°C (104°F) (2)	intermediate spe					ng point		Control rod travel	
ten/tim	cm³/1000 strokes	rev/min 3	(4)	rev/min	cm ² /1000 strokes 5	rev/min	cm ³ /1000 strokes	rev/ma 8	9	
-		f		-		 	 	 	+	
	. 4 394 351									
1050 900 700	253,0-256,0 252,0-258,0 269,0-275,0	1070				100	130,0-170,0	300	19,0-25,0	
AC-Nr	. 4 394 352									
1050 900 700	262,0-268,0 267,0-273,0 267,0-273,0	1070				100	130,0-170,0	300	19,0-25,0	
AC-Nr.	. 4 394 353									
1050 900 700	279,0-285,0 283,0-289,0 293,0-299,0	1070				100	130,0-170,0	300	19,0-25,0	
	. 4 394 354									
1050 900 700	296,0-302,0 301,0-307,0 309,0-315,0	1070				100	130,0-170,0	300	19,0-25,0	
AC-Nr.	4 394 356									
1050 900 700	246,0 240,0 267,0	1070				100	130,0-170,0	300	19,0-25,0	
AC-Nr.	4 394 386									
600	167,0-175,0	620				100	130,0-170,0	300	25,0	
	4 394 390									
900 700	259,0-267,0 238,0-246,0	925				100	130,0-170,0	300	19,0-29,0	
AC-Nr.	4 334 428									
1000 800	188,0-196,0 180,0-187,0	1025				100	130,0-170,0	300 2	25,0	
AC-Nr.	4 394 473									
850 750	189,0-197,0 185,0-193,0	875				100	130,0-170,0	325 3	30,0	
AC-Nr.	4 394 501									
900 700	175.0 158 . 0	925				100	130,0-170,0	300 1	9,0-25,0	
AC-Nr.	4 394 521									
1000 700	239,0-247,0 229,0-235,0	1025				100	130,0-170,0	300 2	5,0	
AC-Nr.	4 394 527									
900 800	161,0 151,0	925				100	130,0-170,0 3	300 1	9,0-25,0	

				p with Fitte	u Go		1	
	d delivery rud stop	Breakaway 20	Fuel deli high idle t	pery characteristics (5)	idle	fuel detivery 6	LOW 3	ile speed 5
Test oil (rev/min	temp. 40°C (104°F) (2)	rev/min 4a	.1	cm³/1000 strokes	switchir	ig point cm ³ /1000 strokes	rev/m	Control ro travel r.) mm
1	2	3	4	5	6	7	8	9
VC-81×	. 4 394 541	1	1		1		1	1
1050	202,0-210,5	1060-1080.			100	130,0-170,	n 200	10.0.2
	•	1000 1000.			100	130,0-170,	0 300	19,0-2
1000	230,5-239,5	1010-1030			100	120 0 470 4	2 200	40.0.0
		1010-1030			100	130,0-170,	J 300	19,0-2
1050 1050	. 4 394 561 258,0	1060-1080			100	120 0 470 /		40.0.0
900	256,0				100	130,0-170,0	J 30U	19,0-2
IC-Nr	. 4 394 564							
050	244,0	1070			100	130,0-170,0	300	19,0-2
900	234,0							
	. 4 394 569							
000	203,0-211,5	1010-1030			100	130,0-170,0	300	19,0-25
	. 4 394 590	ø						
050	260,5-271,0	1060-1080	AE bau	-+ 750 DDM -	100			
segini se "0	ning of movemer 20".	it: 0,40 - 0,4	45 Dar	at /50 PKM 6	ina v,	ou bar pressi	ire,	gap sno
C-Nr.	4 394 593	•						
050	251,5-261,5	1060-1080			100	130,0-170,0	300	19,0-25
C-Nr.	. 4 394 703							
050	260,5-271,0	1060-1080	900	267 0.270 0	400			
	•			207,0-278,0	100	130,0-170,0	300	19,0-25
ilts	stop part posit	tion to obtain	700 n quan	267 ,0- 278,0 1050 tity at	PRM.	Adjust stop p	oart ·	position
btai	n mean curve al	oove. Beginni	700 n quan ng of i	267 ,0- 278,0 1050 tity at	PRM.	Adjust stop p	oart ·	positio
btai ar pi	n mean curve al ressure, gap sl 4 394 705	oove. Beginni	700 n quan ng of i	267 ,0- 278,0 1050 tity at	PRM.	Adjust stop p	oart ·	position
obtai oar pr C-Nr.	n mean curve at ressure, gap st 4 394 705 4 394 706	oove. Beginni nould be "020	700 n quan ng of i	267 ,0- 278,0 1050 tity at	PRM. 1	Adjust stop p ,45 bar at 7	oart 50 PR	position M and O
btai ar pi	n mean curve al ressure, gap sl 4 394 705	oove. Beginni	700 n quan ng of i	267 ,0- 278,0 1050 tity at	PRM.	Adjust stop p	oart 50 PR	position M and O
obtai oar pr C-Nr. 050	n mean curve at ressure, gap st 4 394 705 4 394 706 258,0	oove. Beginni nould be "020	700 n quan ng of i	267 ,0- 278,0 1050 tity at	PRM. 1	Adjust stop p ,45 bar at 7	oart 50 PR	position M and O
obtail bar pr C-Nr. 050 900 C-Nr.	n mean curve at ressure, gap st 4 394 705 4 394 706 258,0 256,0 4 394 707 244,0	oove. Beginni nould be "020	700 n quan ng of i	267 ,0- 278,0 1050 tity at	PRM. 1	Adjust stop p ,45 bar at 7	oart: 50 PR	position M and 0
obtail bar pr C-Nr. 050 900 C-Nr.	n mean curve at ressure, gap st 4 394 705 4 394 706 258,0 256,0 4 394 707	oove. Beginni nould be "020 1060-1080	700 n quan ng of i	267 ,0- 278,0 1050 tity at	PRM. 410 - 0	Adjust stop p ,45 bar at 7	oart: 50 PR	position M and 0
050 050 050 050 050 050 050 050	n mean curve at ressure, gap st 4 394 705 4 394 706 258,0 256,0 4 394 707 244,0 234,0 4 394 718	1060-1080	700 n quan ng of i	267 ,0- 278,0 1050 tity at	PRM. 410 - 0	Adjust stop p ,45 bar at 7	oart: 50 PR	position M and 0
050 050 050 050 050 050 050	n mean curve at ressure, gap st 4 394 705 4 394 706 258,0 256,0 4 394 707 244,0 234,0 4 394 718 198,0-213,0	oove. Beginni nould be "020 1060-1080	700 n quan ng of i	267 ,0- 278,0 1050 tity at	PRM. 410 - 0	Adjust stop p ,45 bar at 7	300 300	position M and 0
050 050 050 050 050 050 050 050 050	n mean curve at ressure, gap st 4 394 705 4 394 706 258,0 256,0 4 394 707 244,0 234,0 4 394 718 198,0-213,0 196,0-210,0	1060-1080	700 n quan ng of i	267 ,0- 278,0 1050 tity at	PRM. 410 - 0	Adjust stop p ,45 bar at 7 130,0-170	300 300	position M and 0 19,0-25
050 050 050 050 050 050 050 050 050	n mean curve at ressure, gap st 4 394 705 4 394 706 258,0 256,0 4 394 707 244,0 234,0 4 394 718 198,0-213,0 196,0-210,0 4 394 719	1060-1080 1070 965-975	700 n quan ng of i	267 ,0- 278,0 1050 tity at	PRM. 410 - 0	Adjust stop p ,45 bar at 7 130,0-170 130,0-170,0	300 300 300	position M and 0 19,0-25 19,0-25
050 050 050 050 050 050 050 055 055 055	n mean curve at ressure, gap st 4 394 705 4 394 706 258,0 256,0 4 394 707 244,0 234,0 4 394 718 198,0-213,0 196,0-210,0	1060-1080	700 n quan ng of i	267 ,0- 278,0 1050 tity at	PRM. 410 - 0	Adjust stop p ,45 bar at 7 130,0-170	300 300 300	position M and 0 19,0-25 19,0-25
050 050 050 050 050 050 050 050 055 055	n mean curve at ressure, gap st 4 394 705 4 394 706 258,0 256,0 4 394 707 244,0 234,0 4 394 718 198,0-213,0 196,0-210,0 4 394 719 166,0-168,0	1060-1080 1070 965-975	700 n quan ng of i	267 ,0- 278,0 1050 tity at	PRM. 410 - 0	Adjust stop p ,45 bar at 7 130,0-170 130,0-170,0	300 300 300	position M and 0 19,0-25 19,0-25
050 050 050 050 050 050 050 050 055 055	n mean curve at ressure, gap st 4 394 705 4 394 706 258,0 256,0 4 394 707 244,0 234,0 4 394 718 198,0-213,0 196,0-210,0 4 394 719 166,0-168,0 142,5-146,5	1060-1080 1070 965-975	700 n quan ng of i	267 ,0- 278,0 1050 tity at	PRM. 410 - 0	Adjust stop p ,45 bar at 7 130,0-170 130,0-170,0	300 300 300	position M and 0 19,0-25 19,0-25 21,0-27

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C. Settings for Fuel Injection Pump with Fi	tted Governor
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<u>C. 3</u>	ettings for Fu					Aetiioi	Low idle	e coest
Control	delivery rod stop	Breakaway 20	Fuel delin	very characteristics (54)	idle	fuel delivery 6		الع
	temp. 40°C (104°F) (2)	intermediate speed rev/min 4a			awitchin	cm ³ /1000 strokes	adulamin A	Control rod travel
rev/min.	cm ³ /1000 strokes	revimin 3	rev/min 4	cm ³ /1 000 strokes 5	6	7	r ev/min 8	9 9
	. 4 394 740/741	1020 1040						
1020 915	213,0-226,0 208,0-218,0	1030-1040						
AC-Nr.	. 4 394 744							
1050 900	250,0 256,0	1060-1080			100	130,0-170,0	300	19,0-25,0
AC-Nr.	. 4 394 745							
950 750	208,0-214,0 196,0-202,0	990			100	130,0-170,0	300 2	21,0-27,0
AC-Nr.	4 394 746							
875 600	161,0-165,0 140,0-144,0	890			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 771			•				
800 600	113,0-119,0 102,0-108,0	820			100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 773							
800 600	125,0-131,0 134,0-140,0	820			100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 775							
1025 900	192,0-198,0 180,0-186,0	1045			100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 777							
1000 800 600	200,0-206,0 180,0-186,0 189,0-195,0	1020			100	130,0-170,0	300 1	9,0-25,0
AC-Nr	4 394 779							
940	185,0-195,0	955-65	•		100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 781							
1025 900 700	230,0-236,0 207,0-213,0 209,0-215,0	1040	•		100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 783							
1000 800	227,0-233,0 197,0-203,0	1020			100	130,0-170,0	300 19	9,0-25,0
AC-Nr.	4 394 785		•					
1000 700	235,0-241,0 263,0-269,0	1020			100	130,0-170,0	300 19	9,0-25,0

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C. Settings for Fuel Injection Pump with F	itted Governor
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C. Settings for Fuel Injection Pump with Fitted Governor Sulfaced delivery Breakaway Properties Starting fuel delivery Committee Committe									
Full-toad (od stop	Breakaway	(29)	Fuel delin	rery characteristics (5e)	Idle	fuel delivery 6	LOW 10	ie speed 5)
Test oil te	mp. 40°C (104°F) (2)	intermediate spe	ed (4)		•	switchin			Control rod travel
rev/min	cm ³ /1000 strokes	rev/min		rev/min	cm ³ /1000 strokes	rev/min	cm ³ /1000 strokes	8 rev/min	9
•	1	 		-		-		-	1
AC-Nr.	4 394 787								
1000	220,0-226,0	1020				109	130,0-170,0	300	19,0-25,
800 600	209,0-215,0 227,0-233,0								
000	22/,0-233,0								
AC-Nr.	4 394 789								
910	190,0	930				100	130,0-170,0	300	25,0
AC-Nr.	4 394 791								
900	160,0-166,0	920				100	130,0-170,0	300	19,0-25,
700	139,0-145,0								
AC-Nr.	4 394 793								
600	124,0-130,0	620				100	130,0-170,0	300	19,0-25,
AC-Nr	4 394 795								
700	127,0-133,0	720				100	130,0-170,0	300	19.0-25.
600	124,0-130,0	720					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
AC-Nr.	4 394 797								
800	139,0-145,0	820				100	130,0-170,0	300	19.0-25.
600	124,0-130,0	020							,.
AC-Nr.	4 394 799								
925	157,0-163,0	945				100	130,0-170,0	300	19,0-25,
800	145,0-151,0								
600	134,0-140,0								
AC-Nr.	4 394 801								
1000	180,0-186,0	1020				100	130,0-170,0	300	19,0-25,
800 700	154,0-160,0 142,0-148,0								
1C_N×	4 394 803								
1050	207,0-213,0	1070				100	130,0-170,0	300	19.0-25.1
900	161,0-175,0	1070				.00	100,0 170,0	000	13,0 20,
800	147,0-153,0								
AC-Nr.	4 394 805								
900	187,0-193,0	920				100	130,0-170,0	300	27,0-33,0
700	162,0-168,0								
AC-Nr.	4 394 807								
900	200,0-206,0	920				100	130,0-170,0	300	27,0-33,0
700	184,0-190,0								
AC-Nr.	4 394 809								
900	203,0-209,0	920	-			100	130,0-170,0	300	19,0-25,0
700	209,0-215,0								

C.	Settings 1	for Fuel	Injection	Pump with	Fitted Governor	r
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Full-load delivery Breskaway (20) Fuel delivery characteristics (5a) Starting fuel delivery (6) Low 141e speed 5									
Control-r	od stop hmp. 40°C (104°F) 2	intonnethate apec		high idle s	9 (B)	idle awitchin	_		Control roc
LGA\LUNU	cm³/1000 strokes	rev/min	(4)	rev/min	cm ³ /1000 strokes		cm ³ /1000 strokes	reiv/min	travel mm
	2	3		4	5	6		8	9
AC-Nr.	4 394 811								
750 600	185,0-191,0 222,0-228,0	770				100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 813								
800 600	210,0-218,0 223,0-229,0	820				100	130,0-170,0	300	19,0-25
lC-Nr.	4 394 815								
900 700	222,0-228,0 202,0-208,0 207,0-213,0	1070				100	130,0-170,0	300	19,0-25
C-Nr.	4 394 817	•							
000 800 600	240,0-246,0 224,0-230,0 237,0-243,0	1020				100	130,0-170,0	300	19,0-25
C-Nr.	4 394 819								
050 900 700	245,0-251,0 224,0-230,0 237,0-243,0	1070				100	130,0-170,0	300	19,0-25
C-Nr.	4-394 821								
000 800 600	217,0-223,0 197,0-203,0 219,0-225,0	1020				100	130,0-170,0	300	19,0-25
C-Nr.	4 394 823								
900 700	210,0-216,0 212,0-218,0	920				100	130,0-170,0	300 2	27,0-33
C-Nr.	4 394 825								
	269,0-275,0 281,0-287,0 293,0-299,0	1070				100	130,0-170,0	300 1	9,0-25
C-Nr.	4 394 827								
900	234,0-240,0 246,0-252,0 268,0-274,0	1070				100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 829								
)50 900	262,0-268,0 279,0-285,0 289,0-295,0	1070				100	130,0-170,0	300 1	9,0-25,
-Nr.	4 394 831								
	241,0-247,0 265,0-271,0 268,0-274,0	1070				100	130,0-170,0	300 1	9,0-25,

C. Settings	for Fuel In	jection	Pump with	Fitted Governor

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		act agees			p with Fitte				
Control	delivery		\sim	Fuel deliv	ery characteristics (5a pest (5b)	Idle		Low idl	e speed 5
Test oil	iemp. 40°C (104°F) (2	1	ω		_		ng point		Control rod
rev/min	cm ³ /1000 strokes	rev/min 3		rev/min 4	cm ³ /1000 strokes 5	6	cm ³ /1000 strokes	rev/min	9
-	_								
AC-Nr.	4 394 833								
900	232,0-238,0	920				100	130,0-170,0	300 1	9.0-25
700	253,0-259,0	•=•					,.	000 1	J,0 - 2J,
AC-Nr.	4 394 835								
750	244,0-250,0	770				100	130,0-170,0	300 1	9.0-25.
700	253,0-259,0								-,,
AC-Nr.	4 394 837								
800	239,0-245,0	820				100	130,0-170,0	300 1	9,0-25,
600	248,0-254,0								
AC-Nr.	4 394 339								
1000 800	212,0-218,0 230,0-236,0	1020			•	100	130,0-170,0	300 1	9,0-25,
_	4 394 841								
900 700	288,0-294,0 287,0-293,0	920				100	130,0-170,0	300 2	7,0-33,
	4 394 843	4000							
1000 800	255,0-261,0 272,0-278,0	1020				100	130,0-170,0	300 1	9,0-25,
600	270,0-276,0								
AC-Nr.	4 394 845					.•			
1050	239,0-245,0	1070				100	130,0-170,0	300 19	9.0-25.
900 700	233,0-239,0 273,0-279,0								
	4 394 847	4000				400			
000 800	215,0-221,0 197,0-203,0	1020				100	130,0-170,0	300 19	,0-25,0
600	220,0-226,0								
C-Nr.	4 394 849								
900	222,0-228,0	920				100	130,0-170,0	300 19	,0-25,0
700	254,0-260,0								
NC-Nr.	4 394 851								
	257,0-263,0	1070				100	130,0-170,0	300 27	,0-33,0
	272,0-278,0								
	4 394 853								
	295,0-303,0 309,0-315,0	1075				100	130,0-170,0	300 25	,0
	•								,
	4 394 857								
	262,0-268,0 267,0-273,0	1070				100	130,0-170,0	300 19	,0-25,0
	267,0-273,0				ISO A		7		

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Full-load Control-r Test ou u			20) Fuel del high ide	ivery characteristics (5e speed (50)	Starting Idle switchin	ide delitery	Low idle	e speed 5 Control roo
rev/min	cm³/1000 strokes	1 4	rev/min	cm ³ /1000 strokes		cm³/1000 strokes	raiv/min I	travei mm
1_	2	3	4	5	6	7	8	9
					1			
C-Nr.	4 394 861							
900 700	296,0-302,0 301,0-307,0 309,0-315,0	1070			100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 863							
900 700	253,0-256,0 252,0-258,0 269,0-275,0	1070			100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 865							
900 700	208,0-214,0 230,0-236,0 260,0-266,0	1070			100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 867							
900 700	181,0-187,0 172,0-178,0	920			100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 869							
925 800 700	176,0-182,0 162,0-168,0 177,0-183,0	945			100	130,0-170,0	300 1	9,0-25,
NC-Nr.	4 394 871							
900 800	173,0-179,0 160,0-166,0	920			100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 873					•		
925 800 700	237,0-243,0 251,0-257,0 269,0-275,0	945			100	130,0-170,0	300 2	7,0-33,
C-Nr.	4 394 875							
700 600	218,0-224,0 240,0-246,0	720			100	130,0-170,0	300 2	7,0-33,
C-Nr.	4 394 877							
050 900 700	213,0-219,0 212,0-218,0 240,0-246,0	1060-1080			100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 879							
050	211,0-220,0	1055-1075	975 700 600	237,5-247,0 258,5-269,5 255,5-266,0	100	130,0-170,0	19,0-	25,0

Tilt stop part position to obtain quantity at 1050 PRM. Adjust stop part position to obtain mean curve above.

C.	Settings	for Fuel In	ection	Pump wi	th Fitted	Governor

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Full-load Control-r	od stop		Fuel deli high idle t	very characteristics (5e)	ics (5a) Starting fuel delivery (6) LOW 1 Idle switching point			dle speed 5	
rev/min	emp. 40°C (104°F) (2) cm³/1000 strokes	rev/min 4a	rev/min	cm³/1000 strokes	rev/min		rev/mu	Control rod travel n j mm	
1	2	3	4	5	6	7	8	9	
t		•	•	I			•		
AC-Nr.	4 394 881								
700 600	246,0 263,0	720			100	130,0-170,0	300	19,0-25,	
AC-Nr.	4 394 883								
1050	244,5-254,5	1060-1080			100	130,0-170,0	300	19,0-25,	
AC-Nr.	4 394 885								
600	258,0				100	130,0-170,0	300	27,0	
AC-Nr.	4 394 891								
600	167,0-175,0	620			100	130,0-170,0	300	25,0	
AC-Nr.	4 394 893			•					
900 700	259,0-267,0 238,0-246,0	925			100	130,0-170,0	300	19,0-29,	
1000	4 394 895 188,0-196,0	1025			100	120 0 170 0	200	05.0	
800	180,0-187,0	1025			100	130,0-170,0	300	25,0	
AC-Nr.	4 394 897								
850	189,0-197,0	875			100	130,0-170,0	325	30,0	
750	185,0-193,0								
	4 394 899	005			400	400 0 400 0			
900 700	175,0 158,0	925			100	130,0-170,0	300	19,0-25,	
AC-Nr.	4 394 905								
	239,0-247,0	1025			100	130,0-170,0	300	25,0	
	229,0-235,0								
	4 394 907	005			400				
	161,0 151,0	925			100	130,0-170,0	300	19,0-25,	
	ing of movement ar pressure, ga				nd				
	4 394 909								
	202,0-210,5	1060-1080			100	130,0-170,0	300	19,0-25,0	
	4 394 911	4040 4200			4.05				
	230,5-239,5	1010-1030			100	130,0-170,0	300 1	19,0-25,0	
	4 394 915	4444							
000	203,0-211,5	1010-1030			100	130,0-170,0	300 '	19,0-25,0	

C. Settings for Fuel Injection Pump with Fitted Governor

Full-load d Control-ro Test oil ten	d step	intermediate apeed	high idle (very characteristics (Se speed (Se)	Starting idle switching	,	Low idl	e speed 5
rev/min	cm ³ /1000 strokes	rev/min 40	rev/min	cm ³ /1000 strokes	rev/min	cm ³ /1000 strokes	rev/min (travei mm
1	2	3	4	5	6	7	8	9

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AC-Nr. 4 394 917

1050 260,5-271,0 1060-1080

100 130,0-170,0 300 19,0-25,0

Beginning of movement: 0,40 - 0,45 bar at 750 PRM and 0,90 bar pressure, gap should be "020".

AC-Nr. 4 394 919

1050 215,5-261,5

1060-1080

100 130,0-170,0 300 19,0-25,0

AC-Nr. 4 394 921

1050 260,5-271,0 1060-1080 900

267,0-278,0 100 130,0-170,0 300 19,0-25,0

700 267,0-278,0

Tilt stop part position to obtain quantity at 1050 PRM. Adjust stop part position to obtain mean curve above. Beginning of movement: 0,40 - 0,45 bar at 750 PRM and 0,90 bar pressure, gap should be "020".

AC-Nr. 4 394 925

1050 244,0 1070

100 130,0-170,0 300 19,0-25,0

900 234,0

AC-Nr. 4 394 997

900 173,0-179,0 800 160,0-166,0 920

100 130,0-170,0 300 19,0-25,0

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PE 6 P 120 A 420 LS 245

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0 401 846 269

companyAllis-Chalmers

1 - 5 - 3 - 6 - 2 - 4 Page 16000-25000 Values only apply to test nozzle-and-holder assembly 0 681 443 022 and fuel-injection test tubing 9 681 230 703.

All test specifications are valid for Bosch Fuel Injection Pump Test Benches and Testers

A. Fuel Injection Pump Settings

Port closing at prestroke

2.8 + 0.1

mm (from BDC)

Rotational speed rev/min 1	Control rod travel mm	Fuel delivery cm ³ /100 strokes 3	Difference cm ³ / 100 strokes 4	Control rod travel mm 2	Fuel delivery cm ³ /100 strokes 3	Spring pre-tensioning (torque-control valve) mm 6
1000	12	26,4 - 27,1			1,0	
600	6 12 15	8,6 - 9,8 26,3 - 28,1 33,8 - 36,1				
200	6	4,2 - 5,2				

Adjust the fuel delivery from each outlet according to the values in

B. Governor Settings

	Upper rated s	i I			Intermediate	rated sp	1	Lower rated	speed		Sliding s	leeve travel
l	deflection	rev/min Control	Control red travel	(b)	Degree of deflection of control		Control rod travel	Degree of deflection of control		Control rod travel		(1)
		rod travel	rev/min	29		rev/min		lever	rev/min 8	mm 3	rev/min 10	mm 11
ı	1	2	3		4	3	6	/	0	3	.0	-''
•	66°		15,0-18					10°	250	6,4-8,0		
		1150	10,7-15 6,0-11						350 450	1,3-2,8		
		1210	0- 7	-				ŀ	550	0		
	i i	1300	0					ŀ				
								<u>3a</u>				

Torque control travel a =

C. Settings for Fuel Injection Pump with Fitted Governor

Full-load of Control-ro Test oil ter		Rotational-speed 2b limitation intermediate appead	Fuel deliv		Starting Idle awitchii	ng point	Torque- travel	Control rod
rev/min	cm ³ /1000 strokes .	rev/min 😃	rev/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	rev/min	mm
1	2	3	4	5	6	7	8	9
1			İ		ŧ			
	1				i			
<u>l</u>	1				ŀ			
1					i			
					l	•		
			,					

Checking values in brackets

* 1 mm less control rod travel than col. 2

C. Settings for Fuel Injection Pump with Fitted Governor	C.	Settings	for Fuel	Injection	Pump	with Fitte	d Governor
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C	Control	d delivery -rod stop temp. 40°C (104°F) (2)	Breakaway (2	Control	d delivery (2) rod stop lemp. 40°C (104°F)	Starting Idle awitchis	fuel delivery 6	Low i	dle speed 5
- 1	ev/min		rev/min	. .	cm ³ /1000 strokes	1	cm ³ /1000 strokes 7	rev/m	travel
				1					1
AC-	-Nr.	4 320 754							
103	25	91,0-93,0	1040	700	99,0-103,0	100	90,0-130,0	300	19,0-25,0
AC-	-Nr.	4 320 793							
100	00	122,0-124,0	1020	700	126,0-130,0	100	90,0-130,0	300	19,0-25,0
AC-	-Nr.	4 320 815							
90	00	100,0-106,0	910-920	700	101,0-107,0	100	90,0-130,0	300	19,0-25,0
				600	111,0-117,0				•
AC-	-Nr.	4 320 816							
90	00	97,0-103,0	910-920	800	98,0-104,0	100	90,0-130,0	300	19,0-25,0
AC-	Nr.	4 320 817							
110	0	139,0-143,0	1120	800 600	149,0-154,0 153,0-161,0	100	90,0-130,0	375	9,0-19,0
••		4 202 202		000	155,0-161,0				
110		4 320 829 139,0-143,0	1120	900	140 0 454 0	400	00 0 400 0	075	:
170	0	133,0-143,0		800 600	149,0-154,0 153,0-161,0	100	90,0-130,0	3/5	9,0-19,0
AC-	Nr.	4 320 933							
90		102,0-110,0	1040	800	107,0-116,0	100	90,0-130,0	300	25,0
AC-	Nr	4 320 939					,.		20,0
90		98,5 + 3	1040	700	107,5 + 4	100	90,0-130,0	300	25,0
		4 320 940			,.		30,0 130,0	300	23,0
90		78,0-86,0	1040	700	100,0-109,0	100	90,0-130,0	200	25.0
		4 320 941	1010	700	100,0-105,0	100	30,0-130,0	300	25,0
102		91,0- 93,0	1040	700	99,0-103,0	100	00 0-120 0	200	10 0 05 0
			1040	,00	33,0-103,0	100	90,0-130,0	300	19,0-25,0
1000		4 320 942 122,0-124,0	1020	700	126 0.420 0	400	00 0 420 0	200	40 0 0 0
			1020	700	126,0-130,0	100	90,0-130,0	300	19,0-25,0
		4 320 980	4400	200					
900	J	108,0-116,0	1120	B00	-	100	90,0-130,0	375	9,0-19,0
		4 320 981							
900)	111,0-119,0	1020	300	112,0-118,0	100	90,0-130,0	300	25,0
AC-N	ir.	4 321 016							
750)	95,0-101,0	1020	750	95,0-101,0	100	90,0-130,0	300	25,0
AC-N	ir.	4 321 064							
1000)	112,0	1030 8	300	112,5	100	90,0-130,0	300	25,0

Full-load o Control-ro Test oil te		Breakaway (intermediate speed	20 Full-load Control-ri Test oil te		Starting full Idle switching	el delivery 6	ron Jaj	e speed 5 Control roc travel
ev/min	cm³/1000 strokes	rev/min (rev/min	cm³/1000 strokes	rev/min	cm³/1000 strokes	rev/min	mm
	2	3	- 	2	6	7	8	9
	•	•	•	•				
C-Nr.	4 359 816							
900	100,0-106,0	910-920	700 600	101,0-107,0 111,0-117,0		90,0-130,0	300	19,0-25
C-Nr.	4 359 826							
900	97,0-103,0	910-920	800	98,0-104,0	100	90,0-130,0	300	19,0-25
C-Nr.	4 359 828							
100	139,0-143,0	1120	800	149,0-154,0	100	90,0-130,0	375	9,0-19
			600	153,0-161,0				
C-Nr.	4 359 830							
025	91,0- 93,0	1040	700	99,0-103,0	100	90,0-130,0	300	19,0-25
C-Nn	4 359 832							
000	122,0-124,0	1020	700	126,0-130,0	100	90,0-130,0	300	19,0-25
						.	-	, ,
	4 392 693	4065.00	000	167,0-177,0	100	130,0-170,0) 3UU	19 0-25
050	205,0-215,0	1065-80	900	10/,0-1//,0	, 100	150,0-170,0	, 300	13,0-25
C-Nr.	4 392 695							46 6 5=
900	149,0-155,0	920	-	-	•	-	300	19,0-25
C-Nr.	4 392 697							
750	185,0-191,0	770	600	222,0-228,0	100	130,0-170,0	300	19,0-25
C-Nn	4 392 699							
800	210,0-218,0	820	600	223,0-229,0	100	130,0-170,0	300	19,0-25
	-	324		,				•
_	4 392 701	020	700	209,0-215,0	100	130,0-170,0	J 3UU	10 0-25
900	203,0-209,0	920	700	ZU3,U-Z13,l	100	130,0-1/0,0	J 300	13,0760
C-Nr.	4 392 703							
050	220,0-230,0	1060-70	900 700	200,0-210,0 205,0-215,0		130,0-170,0	300	19,0-25
			700	F0030 61031	•			
C-Nr.	4 392 707							
050	243,0-253,0	1060-80	900 700	222,0-232,0 235,0-245,0		130,0-170,	300	19,0-25
			700	200,0-240,1				
	4 392 709					400 5 100		40.0.5
000	217,0-223,0	1020	800 600	197,0-203,0 219,0-225,0		130,0-170,	300	19,0-25
			500		-			
	4 392 711	£55					200	10 0 0
600	231,0-237,0	620	-	•	-	~	300	19,0-25

C. Settings for Fuel Injection Pump with Fitted Governor

Full-load Control-re Test oil te	delivery od stop imp. 40°C (104°F) (2)	Breakaway	Contro	d delivery rod stop temp. 40°C (104°F)	Starting Idle	fuel delivery 6	row 1d	e speed 5
rev/min	cm ³ /1000 strokes	rev/iain	(4) rev/mur		1	cm³/1000 strokes	rev/min	travel
1	2	3		2	8	?	8	9
	4 392 715							
050	187,0-193,0	1070	900 700	174,0-180,0 175,0-181,0		130,0-170,0	300	19,0-25
C-Nr.	4 392 717							
050	224,0-230,0	1070	800	185,0-191,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 719							
050	200,0-206,0	1070	900	190,0-196,0	100	130,0-170,0	300	19,0-25
	•		700	214,0-220,0				
	4 392 721							
050	242,0-248,0	1070	900 700	220,0-226,0 230,0-236,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 723							
750	244,0-250,0	770	700	253,0-259,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 725							
800	239,0-245,0	820	600	248,0-254,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 727							
900	232,0-238,0	920	700	253,0-259,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 729							
000	212,0-218,0	1020	800	230,0-236,0	100	130,0-170,0	300.	19,0-25
C-Nr.	4 392 731							
900	288,0-294,0	920	700	287,0-293,0	100	130,0-170,0	300	27,0-33
C-Nr.	4 392 735							
050	239,0-245,0	1070	900 700	233,0-239,0 273,0-279,0	100	130,0-170,0	300	19,0-25
C Nu	4 392 737		700	2/0,0 2/3,0				
	215,0-221,0	1020	800	197,0-203,0	100	130,0-170,0	300	19.0-25
	2.0,0 22.,0		600	220,0-226,0		,	200	.,,,
C-Nr.	4 392 739							
050	207,0-213,0	1050	900 700	195,0-201,0 225,0-231,0	100	130,0-170,0	300	19,0-25
- 41			700	225,0-251,0				
	4 392 741 213,0-219,0	1070	900	202,0-208,0	100	130,0-170,0	_	_
	61330 ⁻ 61330	10/0	700	230,0-236,0	.00	10050-17050	_	_
C-Nr.	4 392 743							
050	220,0-226,0	1070	900 700	210,0-216,0 243,0-249,0	100	130,0-170,0	300 1	19,0-25

<u> </u>	stange ioi i d	el allock	C. Settings for Fuel Injection Pump with Fitted Governor										
Full-load Control- Test oil t		Breakaway (Contro	nd delivery Frod stop I temp. 40°C (104°F)	Starting idle switching	fuel delivery 6	Low id	Control rod					
rev/min	cm ³ /1000 strokes	rev/min	ev/mir	cm³/1000 strokes	rev/min 6	cm³/1000 strokes 7	r év/m i 8	travel mm					
AC-Nr.	4 392 747												
1050	227,0-233,0	1070	900 700	208,0-214,0 247,0-253,0	100	130,0-170,0	300	19,0-25,0					
AC-Nr.	4 392 749												
1050	230,0-234,0	1070	•	-	100	130,0-170,0	300	19,0-25,0					
AC-Nr.	4 392 750												
1050	230,0-234,0	1070	•	-	100	130,0-170,0	300	19,0-25,0					
AC-Nr.	4 392 768												
800	123,0-133,0	820	600	132,0-142,0	100	130,0-170,0	300	19,0-25,0					
	4 392 775/776												
875	162,0-164,0	890	600	140,0-144,0	100	130,0-170,0	300	19,0-25,0					
AC-Nr.	4 392 777												
950	205,0-207,0	970	700	195,0-199,0	100	130,0-170,0	300	19,0-25,0					
AC-Nr.	4 392 778												
950	208,0-214,0	990	750	196,0-202,0	100	130,0-170,0	300	21,0-27,0					
AC-Nr.	3 392 779												
1025	190,0-200,0	1030-40	1000 900	191,0-201,0 178,0-188,0	100	130,0-170,0	300	19,0-25,0					
AC-No	4 392 781		500	1,0,0 100,0									
1025	228,0-238,0	1050-60	900	205,0-215,0	100	130,0-170,0	300	19-0-25-0					
			700	207,0-217,0				,,.					
AC-Nr.	4 392 953												
940	185,0-195,0	955-65	-	-	100	130,0-170,0	300	19,0-25,0					
AC-Nr.	4 393 095												
1050	211,0-221,0	1060-80	900	210,0-220,0	100	130,0-170,0	300	19,0-25,0					
			700	238,0-248,0									
	4 393 307	000	700	040 0 040 0	400	400 0 477 0	200	07.0.55.0					
900	210,0-216,0	920	700	212,0-218,0	100	130,0-179,9	300	Z/,U-33,0					
	4 393 431	4070	000	220 0 225 0	100	420 0 570 0	200	40 0 00 0					
1050	208,0-214,0	1070	900 700	230,0-235,0 260,0-266,0	100	130,0-170,0	300	19,0-25,0					
AC-Nr.	4 393 821												
1050	242,0-248,0	1070	900 700	220,0-226,0 230,0-236,0	100	130,0-170,0	300	19,0-25,0					

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Full-load delivery Control-rod stop Test oil temp. 40°C (104°F) (2)		Breakaway (Contro	ad delivery 2 of-rod stop il temp. 40°C (104°F)	Idle	fuel delivery 6	Low idle speed 5		
rev/min	cm³/1000 strokes		rev/mi		rev/min	cm³/1000 strokes	reiv/min	travel mm	
1	2	3	1	2	6	7	8	9	
•	•	•	•	•	•	•		•	
₩-Nr.	4 393 823								
1050	187,0-193,0	1070	900 700	174,0-180,0 175,0-181,0		130,0-170,0	300	19,0-25,	
C-Nr.	4 393 825								
050	224,0-230,0	1070	800	185,0-191,0	100	130,0-170,0	300	19,0-25,	
C-Nr.	4 393 827								
050	200,0-206,0	1070	900 700	190,0-196,0 214,0-220,0		130,0-170,0	300	19,0-25,	
C-Nr.	4 393 829								
050	230,0-234,0	1070	•	-	100	130,0-170,0	300	19,0-25,	
C-Nr.	4 393 831	•							
050	213,0-219,0	1070	900 700	202,0-208,0 230,0-236,0		130,0-170,0	•	-	
C-Nr.	4 393 833								
050	264,0	1060-1080	900	280,5	100	130,0-170,0	300	19,0-25,0	
C-Nr.	4 393 835							•	
050	220,0-226,0	1070	900 700	210,0-216,0 243,0-249,0	100	130,0-170,0	300	19,0,25,0	
C-Nr.	4 393 837								
050	227,0-233,0	1070	900 700	208,0-214,0 247,0-253,0	100	130,0-170,0	300	19,0-25,0	
C-Nr.	4 393 890			•					
950	208,0-214,0	990	750	196,0-202,0	100	130,0-170,0	300 2	21,0-27,0	
	4 393 891 208,0	965-975	895	203,0	•			_	
				200,0					
	4 393 961 181,0-187,0	920	700	172,0-178,0	100	130,0-170,0	300 1	9,0-25,0	
-Nr.	4 394 001								
00	218,0-224,0	720	600	240,0-246,0	100	130,0-170,0	300 2	7,0-33,0	
-Nr.	4 394 .017								
50	208,0-214,0	990	750	196,0-202,0	100	130,0-170,0	300 2	1,0-27,0	
-Nr.	4 394 020							•	
	249,0-257,0	725	600	258,0-264,0	100	130,0-170,0			

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<u>U. 3</u>	etmiss for F	nei mieci	ion rui	np with Fitte	ed Gio	Actuol		
Control	d delivery Frod stop temp. 40°C (104°F) (2	Breakaway	(20) Full-to Contro Test of	ad delivery Arrod stop I temp. 40°C (104°F)	idle	fuel delivery 6	Low id	Control rod
revimin		rev/min	rev/ma		rev/min	1	reiv/mur	travel
1	2	3	1	2	6	7	8	9
•	•	•	•	•	•	•	•	•
AC-Nr.	. 4 394 062							
800	113,0-119,0	820	600	102,0-108,0	100	130,0-170,0	300	19,0-25,6
AC-Nr.	. 4 394 064							
875	161,0-165,0	890	600	140,0-144,0	100	130,0-170,0	300	19,0-25,0
AC-Nr.	. 4 394 066							
800	125,0-131,0	820	600	134,0-140,0	100	130,0-170-0	300	19.0-25.0
AC-Nr.	. 4 394 068					•		,,.
1025	192,0-198,0	1045	900	180,0-186,0	100	130,0-170,0	300	19.0-25.0
AC-Nr.	4 394 070					,.	300	13,0 23,0
1000	200,0-206,0	1020	800	180,0-186,0	100	130,0-170,0	300	10 0-25 0
	200,0		600	189,0-195,0	100	100,0 170,0	300	19,0-29,0
AC-Nr.	4 394 072							
940	185,0-195,0	955-65		-	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 074							
1025	230,0-236,0	1040	900	207,0-213,0	100	130,0-170,0	300	19 N <u>-</u> 25 N
			700	209,0-215,0	, , ,	,.	000	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
AC-Nr.	4 394 076							
1000	227,0-233,0	1020	800	197,0-203,0	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 078						•	
1000	235,0-241,0	1020	700	263,0-269,0	100	130,0-170,0	300 1	19,0-25,0
AC-Nr.	4 394 080							
1000	220,0-226,0	1020	800	209,0-215,0	100	130,0-170,0	300 1	9.0.25.0
			600	227,0-233,0				, . , , .
AC-Nr.	4 394 082							
910	190,0	930	-	-	100.	130,0-170,0	300 2	25,0
AC-Nr.	4 394 084							
900	160,0-166,0	920	700	139,0-145,0	100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 086							-
600	124,0-130,0	620	-	-	100	130,0-170,0	300 1	9.0-25.0
AC-Nr.	4 394 088						- - •	. ,, 0
	127,0-133,0	720	600	124,0-130,0	100	130,0-170,0	3በበ 1	Q N_2E A
	4 394 090	- -		,				J,U-60,U
	139,0-145,0	820	600	124,0-130,0	100	120 0.470 0	200 4	0 0 05 6
	. 32,73 . 10,10	720	500	127,0-130,0	100	130,0-170,0	300 T	3,0-25,0

J15

C. Settings	for Fuel In	iection Pum	o with Fitted	Governor
A. Aefmide	IOI LOGINI	Journal Land	h mini i irred	COLCINO

Control-	delivery rod stop emp. 40°C (104°F) (3	Breakaway	Cont	oad delivery rol-rod stop oil temp. 40°C (104°F)	ン Idle	g fuel delivery 6	Low idle speed 5
rev/man	cm³/1000 strokes	rev/min	(4) rev/n			n cm³/1000 strokes	travel
1	2	3	1	2	6	7	8 9
					1		
AC-Nr.	4 394 092						
925	157,0-163,0	945	800	145,0-151,		130,0-170,0	300 19,0-25,
			600	134,0-140,	0		
AC-Nr.	4 394 094						
1000	180,0-186,0	1020	800 700	154,0-160, 142,0-148,		130,0-170,0	300 19,0-25,6
AC-Nr.	4 394 096						
1050	207,0-213,0	1070	900	161,0-175,	0 100	130,0-170,0	300 19,0-25,0
			800	147,0-153,	0		
AC-Nr.	4 394 098						
900	187,0-193,0	920	700	162,0-168,	0 100	130,0-170,0	300 27,0-33,0
AC-Nr.	4 394 100						
900	200,0-206,0	920	700	184,0-190,	0 100	130,0-170,0	300 27,0-33,0
C-Nr.	4 394 102					•	
	203,0-209,0	920	700	209,0-215,0	0 100	130 0-170 0	300 19,0-25,0
		320	700	203,0 213,0	3 100	150,04,70,0	300 19,0-25,0
	4 394 104	770					
750	185,0-191,0	770	600	222,0-228,0	100	130,0-170,0	300 19,0-25,0
-	4 394 106						
800	210,0-218,0	820	600	223,0-229,0	100	130,0-170,0	300 19,0-25,0
C-Nr.	4 394 108						
050	222,0-228,0	1070	900	202,0-208,0		130,0-170,0	300 19,0-25,0
			700	207,0-213,0)		
	4 394 110						
000	240,0-246,0	1020	800 600	224,0-230,0		130,0-170,0	300 19,0-25,0
			000	237,0-243,0			
	394 112						
050 2	245,0-251,0	1070	900 700	224,0-230,0 237,0-243,0		130,0-170,0	300 19,0-25,0
n Nim d	204 144		, 00	207,0 240,0			
	394 114	1020	000	407 0 000 0	400		
, o o	217,0-223,0	1020	800 600	197,0-203,0 219,0-225,0	100	130,0-170,0	300 19,0-25,0
-Nr. 4	394 116			- •			
	10,0-216,0	920	700	212,0-218,0	100	120 0 470 0 2	000 07 0 00
		250	700	£12,U-210,U	100	130,0-170,0 3	2/,0-33,0
	394 118	40.55					
150 2	69,0-275,0	1070	900	281,0-287,0	100	130,0-170,0 3	200 10 0 25 0

Full-toad Control-to Test oil te		Breakaway 20		il-load de introi-roc at oil terr		Starting i idle awitchin	iuel delivery 6 g point	Low idle speed 3 Control rod		
rev/min	cm ³ /1000 strokes	rev/min		r/min	cm³/1000 strokes	1 1	cm ³ /1000 strokes	rev/msn	travel mm	
1	2	3	<u>.</u>		2	6	7	8	9	
	1	•	•			•		J	1	
C-Nr.	4 394 120									
1050	234,0-240,0	1070	90 70		246,0-252,0 268,0-274,0	100	130,0-170,0	300	19,0-25	
C-Nr.	4 394 122									
050	262,0-268,0	1070	90 70		279,0-285,0 289,0-295,0	100	130,0-170,0	300	19,0-25	
AC-Nr.	4 394 124									
050	241,0-247,0	1070	90 70		265,0-271,0 268,0-274,0	100	130,0-170,0	300	19,0-25	
AC-Nr.	4 394 126									
900	232,0-238,0	920	70	0	253,0-259,0	100	130,0-170,0	300	19,0-25	
C-Nr.	4 394 128									
750	244,0-250,0	770	70	0	253,0-259,0	100	130,0-170,0	300	19,0-25	
C-Nr.	4 394 130									
800	239,0-245,0	820	60	n	248.0-254.0	100	130,0-170,0	300	19.0-25	
		920	•	•	210,0 201,0		.00,0 .70,0	000	13,0 20	
	4 394 132			_						
000	212,0-218,0	1020	80	0	230,0-236,0	100	130,0-170,0	300	19,0-25	
C-Nr.	4 394 134									
900	288,0-294,0	920	70	0	287,0-293,0	100	130,0-170,0	300	27,0-33	
C-Nr	4 394 136									
000	255,0-261,0	1020	80	0	272,0-278,0	100	130,0-170,0	300	19 0-25	
000	255,0-201,0	1020	60		270,0-276,0	.00	130,0 170,0	300	13,0-23	
C_Nr	4 394 138									
050	239,0-245,0	1070	90	n	233,0-239,0	100	130,0-170,0	300	10 0-25	
000	233,0-273,0	10/0	70		273,0-279,0	100	19050-17050	500	19,0723	
C-Nr	4 394 140									
000	215,0-221,0	1020	80	n	197,0-203,0	100	130,0-170,0	300	19 0-25	
J J J	21030 22130	1020	60		220,0-226,0	100	10050 17050	200	12,0-23	
C_815	4 394 142									
		920	70	n	254,0-260,0	100	130,0-170,0	300 -	10 N. 25	
900	222,0-228,0	340	/0	J	£J4,U-600,U	100	150,0-170,0	200	17,0-23	
C-Nr.	4 394 144									
050	257,0-263,0	1070	75	0	272,0-278,0	100	130,0-170,0	300	27,0-33	
C-Nr.	4 394 148				•					
050	295,0-303,0	1075	90	0	309,0-315,0	100	130,0-170,0	300 3	25.0	
				-		. • •			,-	

C.	Settings	for Fue	Injection	Pump '	with	Fitted	Governor
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Full-toad of Control-ro Test oil te		Breakaway	②	Full-load Control-n Yest oil te		Starting Idle	fuel delivery 6	Low idl	e speed 5
rev/min	cm³/1000 strokes	rev/min	(4)	rev/min	cm³/1000 strokes	rev/min	cm³/1000 strokes	reiv/mın	travel mm
1	2	3		1	2	6	7	е	0
AC Alm	A 204 1E0	•	•		•	•	•	•	•
_	4 394 150	4070		000	274 0 200 0	400	520 0 470 0	200	40 0 25 /
1050	268,0-274,0	1070		900 700	274,0-280,0 280,0-286,0		130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 152								
1050	262,0-268,0	1070		900 700	267,0-273,0 267,0-273,0		130,0-170,0	300	19,0-25,6
AC-Nr.	4 .394 154								
1050	279,0-285,0	1070		900 700	283,0-289,0 293,0-299,0		130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 156								
1050	296,0-302,0	1070		900 700	301,0-307,0 309,0-315,0		130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 158 4 394 157								
1050	253,0-256,0	1070		900 700	252,0-258,0 269,0-275,0		130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 160								
1050	208,0-214,0	1070		900 700	230,0-235,0 260,0-266,0	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 162								
900	181,0-187,0	920		700	172,0-178,0	100	130,0-170,0	300	19.0-25.0
					,		,.		,0,
925	4 394 164 176,0-182,0	945		800 700	162,0-168,0 177,0-183,0	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 166								
900	173,0-179,0	920		800	160,0-166,0	100	130,0-170,0	300	19,0-25,0
NC-Nr.	4 394 168								
925	237,0-243,0	945		800 700	251,0-257,0 269,0-275,0	100	130,0-170,0	300	27,0-33,0
AC-Nr.	4 394 170								
700	218,0-224,0	720	(500	240,0-246,0	100	130,0-170,0	300	27,0-33,0
NC-Nr.	4 394 176								
050	213,0-219,0	1070		900 700	212,0-218,0 240,0-246,0	100	130,0-170,0	300	19,0-25,0

C.	Settings	for Fuel	Injection	Pump	with	Fitted	Governor

Full-load d Control-ro	d stop		high idle :	very characteristics (5)	Idle	uel delivery 6	Low idl	e speed 5
_	np. 40°C (104°F) (2)	intermediate spec			switchin			Control rod
rev/min	cm ³ /1000 strokes	revimin	rev/min	cm³/1000 strokes	6	cm³/1000 strokes	nev/min	mm o
		F			 	·		
AC-Nr.	4 394 246							
1050	211,0-220,0	1055-107	75 975 700 600	237,5-247, 258,5-269, 255,5-266,	5	130,0-170,0	300	19,0-25
	top part posi stop part po							
	. 500p part po 4 394 248	Sicion to	optain m	can curve abl	ve.			
		720			100	120 0 170 /	200	40 0 25
700 600	246,0 263,0	720			100	130,0-170,0	300	19,0-25
AC No	4 394 250							
	244,5-254,5	1060-108	0		100	120 0-170 0	200	10 0 25
1050	244,5-254,5	1000-100	U		100	130,0-170,0	300	19,0-25
	4 394 257							
600	258,0	•		•	100	130,0-170,0	300	27,0
AC-Nr.	4 394 314							
1050	246,0	1070			100	130,0-170,0	300	19,0-25
900 700	240,0 267,0							
700	207,0							
C-Nr.	4 394 331							
050	241,0-247,0	1070			100	130,0-170,0	300	19,0-25
900 700	265,0-271,0 268,0-274,0							
1C-N2	4 394 332							
	268,0-274,0	1070			100	130,0-170,0	200	10 0-25
900	274,0-280,0	1070			100	130,0-170,0	300	19,0-25
700	280,0-286,0		a					
C-Nr.	4 394 347 .		•					
	269,0-275,0	1070			100	130,0-170,0	300	19,0-25
	281,0-287,0 293,0-299,0							
	4 394 348							
	234,0-240 ₀ 0 246,0-252,0	1070			100	130,0-170,0	300	19,0-25,
	268,0-274,0							
C-Nr.	4 394 349							
	208,0-214,0	1070			100	130,0-170,0	300	19.0-25
900	230,0-236,0					,		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
700	260,0-266,0							
C-Nr.	4 394 350							
	262,0-268,0	1070			100	130,0-170,0	300	19,0-25,
	279,0-285,0 289,0-295,0							

	ad delivery	Breakaway	(2 b)	Fuel deli	very characteristics (54	Startin	g fuel delivery (6)	Low idle speed 5
	ol-rod stop Hi temp. 40°C (104°F) (2	entermediate spe	ed_	high ide	peed ®	'i idia	ning point	Control ro
rev/m	in cm³/1000 strokes	rev/min 3	•	rev/min	cm ³ /1000 strokes 5	rev/mi	n cm³/1000 strokes	reiv/min mm
AC-N	r. 4 394 351							
1050 900 700	253,0-256,0 252,0-258,0 269,0-275,0	1070			·	100	130,0-170,0	300 19,0-25
AC-Ni	r. 4 394 352							
1050 900 700	262,0-268,0 267,0-273,0 267,0-273,0	1070				100	130,0-170,0	300 19,0-25
AC-Nr	• 4 394 353							
1050 900 700	279,0-285,0 283,0-289,0 293,0-299,0	1070				100	130,0-170,0	300 19,0-25
AC-Nr	4 394 354							
1050 900 700	296,0-302,0 301,0-307,0 309,0-315,0	1070				100	130,0-170,0	300 19,0-25,
lC-Nr	. 4 394 356							
050 900 700	246,0 240,0 267,0	1070				100	130,0-170,0	300 19,0-25,
C-Nr.	. 4 394 386							
600	167,0-175,0	620				100	130,0-170,0	300 25,0
C-Nr.	4 394 390							·
900 700	259,0-267,0 238,0-246,0	925				100	130,0-170,0	300 19,0-29,
C-Nr.	4 394 428							
000 800	188,0-196,0 180,0-187,0	1025				100	130,0-170,0 3	300 25,0
	4 394 473							
350 750	189,0-197,0 185,0-193,0	875				100	130,0-170,0 3	25 30,0
-Nr.	4 394 501							
000 00	175,0 158,0	925			•	100	130,0-170,0 3	00 19,0-25,0
	4 394 521							
00	239,0-247,0 229,0-235,0	.1025				100	130,0-170,0 3	00 25,0
	4 394 527							
00 00	161,0 151,0	925				100	130,0-170,0 30	0 19.0-25.0

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C. 5	ettings for Fu	el Injection	Pum	p with Fitte	d Go	vernor		
Control	delivery rod stop temp. 40°C (104°F) (2)	Breakaway 20	Fuel deli high idle i	very characteristics (5a)	Starting idle switchir	fuel delivery 6	Low id	le speed 5
rev/min		rev/min 49	rev/min	cm ³ /1000 strokes		cm ³ /1000 strokes 7	reiv <i>ic</i> min 8	travel
'			-				,	
	. 4 394 541							
1050	202,0-210,5	1060-1080			100	130,0-170,0	300	19,0-25
AC-Nr	. 4 394 550							
1000	230,5-239,5	1010-1030			100	130,0-170,0	300	19,0-25
AC-Nr	. 4 394 561							
1050 900	258,0 256,0	1060-1080			100	130,0-170,0	300	19,0-25
AC-Nr	. 4 394 564							
1050 900	244,0 234,0	1070			100	130,0-170,0	300	19,0-25
AC-Nr	. 4 394 569							
1000	203,0-211,5	1010-1030		•	100	130,0-170,0	300	19,0-25
AC-Nr.	. 4 394 590							
1050	260,5-271,0	1060-1080				130,0-170,0		
Begin be "O	ning of movemen 20".	it: 0,40 - 0,4	l5 bar	at 750 PRM a	nd 0,	90 bar pressu	re, g	gap shou
	4 394 593							
1050	251,5-261,5	1060-1080			100	130,0-170,0	300	19,0-25,
	. 4 394 703							
1050	260,5-271,0		900 700	267,0-278,0 267,0-278,0	100	130,0-170,0	300	19,0-25,
obtai	stop part posit n mean curve ab ressure, gap sh	ion to obtain ove. Beginni	quan	tity at 1050	PRM. 0	Adjust stop p ,45 bar at 75	art p 0 PR	oosition M and 0,
AC-Nr.	4 394 705 4 394 706							
1050	258,0	1060-1080			100	130,0-170	300	19,0-25,
900	256,0		•			,	,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
AC-Nr.	4 394 707							
1050 900	244,0 234,0	1070	•		100	130,0-170,0	300	19,0-25,
AC-Nr.	4 394 718							
955 800	198,0-213,0 196,0-210,0	965-975			100	130,0-170,0	300	21,0-27,
AC-Nr.	4 394 719					•		
875	166,0-168,0	915	•		100	130,0-170,0	300 :	21.0-27.
600	142,5-146,5							
AC-Nr.	4 394 733							
1000	255,0-261,0 272,0-278,0	1020			100	130,0-170,0	300 1	19,0-25,0
. 600	270,0-276,0	To	etoi	I-ISO 4	149			
		10	310	100 7				

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<u> </u>	ettings for ru				9 00	AGUIOL		
	delivery	Breakaway 2	Fuel deli	rery characteristics (50) speed (50)	Starting idle	fuel dislivery 6	LOW 1d1	e speed 5
Test oil	iemp. 40°C (104°5) 2	intermediate speed			awitchir	ng peint I		Control rod
ten/tum		rev/min (4	P rev/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	rev/min	mm
1	2	3	 	5	6	7	8	•
AC-Nr	. 4 394 740/741		-		•	-		
1020 915	213,0-226,0 208,0-218,0	1030-1040						
AC-Nr	. 4 394 744							
1050 900	250,0 256,0	1060-1080			100	130,0-170,0	300	19,0-25,
AC-Nr.	. 4 394 745							
950 750	208,0-214,0 196,0-202,0	990			100	130,0-170,0	300	21,0-27,
AC-Nr.	. 4 394 746							
875 600	161,0-165,0 140,0-144,0	890			100	130,0-170,0	300	19,0-25,
AC-Nr.	4 394 771			•				
800 600	113,0-119,0 102,0-108,0	820			100	130,0-170,0	300	19,0-25,
AC-Nr.	4 394 773							
800 600	125,0-131,0 134,0-140,0	820			100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 775							
1025 900	192,0-198,0 180,0-186,0	1045			100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 777							
1000 800 600	200,0-206,0 180,0-186,0 189,0-195,0	1020			100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 779							
940	185,0-195,0	955-65	•		100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 781							
1025 900 700	230,0-236,0 207,0-213,0 209,0-215,0	1040	•		100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 783							
1000 800	227,0-233,0 197,0-203,0	1020			100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 785		•					
1000 700	235,0-241,0 263,0-269,0	1020			100	130,0-170,0	300 1	9,0-25,0

C.	Settings	for	Fuel	Inj	ection	Pump	with	Fitted	Governor
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Full-load (Breakaway	(26)	Fuel dein	very characteristics (5)	Starting h	uel delivery 6	LOW 141	e speed 3
	mp. 40°C (104°F) (2)	reemedate sp		10100	(3)	awitchin	point		Control rod
rev/min	cm ³ /1000 strokes	rev/min	(4)	rev/min	cm ³ /1000 strokes		cm³/1000 strokes	rev/min	ww
1	2	3		4	5	6	7	8	9
C-Nr	4 394 787								
000	220,0-226,0	1020				100	130,0-170,0	300	19.0-25.
800	209,0-215,0	1020				,,,,	100,0 170,0		,,
600	227,0-233,0								
C-Nr.	4 394 789								
910	190,0	930				100	130,0-170,0	300	25,0
	_								
_	4 394 791	020				100	130,0-170,0	300	19.0-25.
900 700	160,0-166,0 139,0-145,0	920				100	130,0-170,0	300	15,0 20,
	•								
	4 394 793					400	120 0 170 0	200	10 0-25
600	124,0-130,0	620				100	130,0-170,0	300	13,0-25,
C-Nr.	4 394 795				•				
700	127,0-133,0	720				100	130,0-170,0	300	19,0-25,
600	124,0-130,0								
lC-Nr.	4 394 797								
800	139,0-145,0	820				100	130,0-170,0	300	19,0-25,
600	124,0-130,0								
C-Nr.	4 394 799								
925	157,0-163,0	945				100	130,0-170,0	300	19,0-25
800 600	145,0-151,0 134,0-140,0								
OUU	134,0-140,0								
IC-Nr.	4 394 801							,	
	180,0-186,0	1020				100	130,0-170,0	300	19,0-25
800 700	154,0-160,0 142,0-148,0								
C No	4 204 902								
	4 394 803 207,0-213,0	1070				100	130,0-170,0	300	19.0-25.
050 900	161,0-175,0	1070				100	150,0 170,0	, 500	13,0 23
800	147,0-153,0								
C-Nr.	4 394 805								
900	187,0-193,0	920				100	130,0-170,0	300	2 7,0- 33,
700	162,0-168,0						•		·
C-Nr.	4 394 807								
900	200,0-206,0	920				100	130,0-170,0	300	27,0-33
700	184,0-190,0	V					,,.	-	- ,
C-Nr	4 394 809								
· • •	7 JJT UUJ								
900	203,0-209,0	920				100	130,0-170,0	300	19,8-25

~	Cattingo	for Eug	Linication	Pump with	Eitted	Governor	
U.	ermina?	IOI LOG	i nilection	Lamb Airm	111100	COTCITION	

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Full-load of Control-ro	ielivery	Breakaway	②	Fuel delin	very characteristics (5e peed (5)	Starting i	iuel delivery 6	Low idl	e speed 5
LOA JUNÍO LOBAL ON TO	cm³/1000 strokes	rev/min	•	rev/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	rév/mun	travel mm
	2	3		1	5	6		8	
AC-Nr.	4 394 811								
750 600	185,0-191,0 222,0-228,0	770				100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 813								
800 600	210,0-218,0 223,0-229,0	820				100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 815								
1050 900 700	222,0-228,0 202,0-208,0 207,0-213,0	1070				100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 817	•							
1000 800 600	240,0-246,0 224,0-230,0 237,0-243,0	1020				100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 819								
1050 900 700	245,0-251,0 224,0-230,0 237,0-243,0	1070				100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 821								
1000 800 600	217,0-223,0 197,0-203,0 219,0-225,0	1020				100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 823								
900 700	210,0-216,0 212,0-218,0	920				100	130,0-170,0	300	27,0-33,0
AC-Nr.	4 394 825								
1050 900 700	269,0-275,0 281,0-287,0 293,0-299,0	1070				100	130,0-170.0	300	19,0-25,0
AC-Nr.	4 394 827								
900	234,0-240,0 246,0-252,0 268,0-274,0	1070				100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 829								
900	262,0-268,0 279,0-285,0 289,0-295,0	1070				100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 831								
900	241,0-247,0 265,0-271,0 268,0-274,0	1070				100	130,0-170,0	300	19,0-25,0

C.	Settings	for Fuel Injec	ction Pump	with Fitted	Governor

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	id delivery	Breakaway	(2b) Fu	ol deli	very characteristics (5e	Startin	fuel delivery (6)	Low 1	dle speed 5	5
Control Test oil	l-rod stop I temp. 40°C (104°F) (2) intermediate ap	_ Ing	h idle :	posed (3)	Idle	ing point		Control ro	20
rev/mir	cm³/1000 strokes	rev/min	49 rev	/min	cm ³ /1000 strokes	rev/mir	cm³/1000 strokes	rav/m		
-	2	3		_	5	6	1	8	9	\dashv
•										
	. 4 394 833									
900 700	232,0-238,0 253,0-259,0	920				100	130,0-170,0	300	19,0-25	,(
10 No.										
	. 4 394 835	770				400	100 0 150 0			
750 700	244,0-250,0 253,0-259,0	770				100	130,0-170,0	300	19,0-25	,{
C-No	. 4 394 837					-				
800	239,0-245,0	820				100	120 0 170 0	200	40 0 05	
600	248,0-254,0	020				100	130,0-170,0	300	19,0-25,	, (
C-Nr.	. 4 394 839									
000	212,0-218,0	1020				100	130,0-170,0	300	10 0-25	ſ
800	230,0-236,0						100,0 170,0	300	13,0-23,	, •
C-Nr.	4 394 841									
900	288,0-294,0	920				100	130,0-170,0	300	27.0-33.	. 0
700	287,0-293,0								,.	, –
C-Nr.	4 394 843									
000	255,0-261,0	1020				100	130,0-170,0	300	19,0-25,	. 0
800 600	272,0-278,0 270,0-276,0									, -
	4 394 845	4070								
050 900	239,0-245,0 233,0-239,0	1070				100	130,0-170,0	300	19,0-25,	0
700	273,0-279,0									
C-Nr.	4 394 847									
000	215,0-221,0	1020				100	130,0-170,0	300	19.0-25.	۵
300 500	197,0-203,0 220,0-226,0									•
	4 394 849		•							
900 700	222,0-228,0 254,0-260,0	920				100	130,0-170,0	300	19,0-25,	0
-Nr	4 394 851									
)50	257,0-263,0	1070				100	120 0-170 0 1	200	27 0 22 4	^
750	272,0-278,0	1070				100	130,0-170,0	טטט ו	ر کک-Uر ۱۲ ار کک	U
-Nr	4 394 853									
50	295,0-303,0	1075				100	130,0-170,0 3	የበለ ሳ	25 N	
000	309,0-315,0					.00	13030-17030 3	, UU 4	, ,	
-Nr.	4 394 857									
	262,0-268,0	1070				100	130,0-170,0 3	የበብ 4	10 N-25 (n
	267,0-273,0					. 00	100,0-1/0,0 3	UU	J,U-25,	j

K1

-18-

Full-load Control-r Test oil to				very characteristics (56 speed (50)	I ICHE	fuel delivery 6	Low idle speed 5		
rev/min	cm ³ /1000 strokes	rev/min	rev/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	rev/mir	travel	
1	2	3	4	5	6	7	8	9	
Ĭ.	•	•	•		1	1	ı	1	
IC-Nr.	4 394 861								
900 700	296,0-302,0 301,0-307,0 309,0-315,0	1070			100	130,0-170,0	300	19,0-25	
C-Nr.	4 394 863								
050 900 700	253,0-256,0 252,0-258,0 269,0-275,0	1070			100	130,0-170,0	300	19,0-25	
C-Nr.	4 394 865								
050 900 700	208,0-214,0 230,0-236,0 260,0-266,0	1070			100	130,0-170,0	300	19,0-25	
C-Nr.	4 394 867								
900 700	181,0-187,0 172,0-178,0	920			100	130,0-170,0	300	19,0-25	
C-Nr.	4 394 869								
925 800 700	176,0-182,0 162,0-168,0 177,0-183,0	945			100	130,0-170,0	300	19,0-25	
C-Nr.	4 394 871								
900 800	173,0-179,0 160,0-166,0	920			100	130,0-170,0	300 '	19,0-25	
C-Nr.	4 394 873								
300	237,0-243,0 251,0-257,0 269,0-275,0	945			100	130,0-170,0	300 2	27,0-33	
C-Nr.	4 394 875								
	218,0-224,0 240,0-246,0	720			100	130,0-170,0	300 2	27,0-33	
C-Nr.	4 394 877	·				•			
900	213,0-219,0 212,0-218,0 240,0-246,0	1060-1080			100	130,0-170,0	300 1	9,0-25	
-Nr.	4 394 879								
)50	211,0-220,0	1055-1075	975 700 600	237,5-247,0 258,5-269,5 255,5-266,0	100	130,0-170,0	19,0-	25,0	

Tilt stop part position to obtain quantity at 1050 PRM. Adjust stop part position to obtain mean curve above.

C.	Settings 1	for Fue	l Injection	Pump with	Fitted	Governor

-19-

Full-load (Control-re Test oil te		Breakaway 20	Fuel deli- high idle t	very characteristics (Se peed (Se)	Starting idle switching	fuel delivery 6	Low idle speed 5 Control rod		
rev/min	cm³/1000 strokes	rev/min 4a	rev/min	cm ³ /1000 strokes		cm ³ /1000 strokes	rév/min 8	travel mm	
F	2	3	-	5	-				
AC-Nr.	4 394 881								
700 600	246,0 263,0	720			100	130,0-170,0	300	19,0-25,	
	4 394 883								
1050	244,5-254,5	1060-1080			100	130,0-170,0	300	19,0-25,	
	4 394 885								
600	258,0				100	130,0-170,0	300	27,0	
AC-Nr.	4 394 891								
600	167,0-175,0	620			100	130,0-170,0	300	25,0	
AC-Nr.	4 394 893								
900 700	259,0-267,0 238,0-246,0	925			100	130,0-170,0	300	19,0-29,0	
AC-Nr.	4 394 895								
1000 800	188,0-196,0 180,0-187,0	1025			100	130,0-170,0	300	25,0	
4C-Nr.	4 394 897								
850 750	189,0-197,0 185,0-193,0	875		·	100	130,0-170,0	325	30,0	
AC-Nr.	4 394 899								
900 700	175,0 158,0	925			100	130,0-170,0	300 1	19,0-25,0	
C-Nr.	4 394 905								
	239,0-247,0 229,0-235,0	1025			100	130,0-170,0	300 2	25,0	
IC-Nr.	4 394 907								
	161,0 151,0	925 ·			100	130,0-170,0	300 1	9,0-25,0	
Beginni	ing of movemen ar pressure, g	nt: 0,40 - 0,4 pap should be	5 bar "020".	at 750 PRM a	nd				
ic-Nr.	4 394 909								
050	202,0-210,5	1060-1080			100	130,0-170,0	300 1	9,0-25,0	
C-Nr.	4 394 911								
000	230,5-239,5	1010-1030			100	130,0-170,0	300 1	9,0-25,0	
.C-Nr.	4 394 915								
000	203,0-211,5	1010-1030			100	130,0-170,0	200 4	0 0 05 0	

JE 3

C. Settings for Fuel Injection Pump with Fitted Governor

Full-load d Control-roo Test oil ten	d stoo	Breakaway 200 intermediate speed	Fuel delic high idle s	very characteristics (5a)	Starting idle awitchir		Low idl	e speed 5
rev/min	cm ³ /1000 strokes	rev/min 44	rev/mia	cm³/1000 strokes	rev/min	cm ³ /1000 strokes	rev/min	travel mm
1	2	3	4	5	6	7	8	9

-20-

AC-Nr. 4 394 917

1050 260,5-271,0 1060-1080

100 130,0-170,0 300 19,0-25,0

Beginning of movement: 0,40 - 0,45 bar at 750 PRM and

0,90 bar pressure, gap should be "020".

AC-Nr. 4 394 919

1050 215,5-261,5 1060-1080

100 130,0-170,0 300 19,0-25,0

AC-Nr. 4 394 921

1050 260,5-271,0

900 1060-1080

267,0-278,0 100 130,0-170,0 300 19,0-25,0

700 267,0-278,0

Tilt stop part position to obtain quantity at 1050 PRM. Adjust stop part position to obtain mean curve above. Beginning of movement: 0,40 - 0,45 bar at 750 PRM and 0,90 bar pressure, gap should be "020".

AC-Nr. 4 394 925

1050 244.0 1070

100 130,0-170,0 300 19,0-25,0

900 234,0

AC-Nr. 4 394 997

900 173,0-179,0 800 160,0-166,0 920

100 130,0-170,0 300 19,0-25,0

Festoil-ISO 4113

Test Specifications Fuel Injection Pumps 1 and Governors

PE 6 P 120 A 420 LS 245

0 401 846 270 1 - 5 - 3 - 6 - 2 - 4 ROV 300...1050 PA 202 KR

companyAllis-Chalmers

1 - 5 - 3 - 6 - 2 - 4
Values only apply to test nozzle-and-holder assembly 0 681 443 022 and fuel-injection test tubing 9 681 230 703.

All test specifications are valid for Bosch Fuel Injection Pump Test Benches and Testers

A. Fuel Injection Pump Settings

Port closing at prestroke

2,8 + 0,1

mm (from BDC)

Rotational speed rav/min	Control rod travel mm 2	Fuel delivery cm ³ /100 strokes 3	Difference cm ³ / 100 strokes 4	Control rod travel mm	Fuel delivery cm ³ /100 strokes 3	Spring pre-tensioning (torque-control valve) mm 6
1000	12	26,4 - 27,1			1,0	
600	6 12	8,6 - 9,8 26,3 - 28,1				
200	15 6	33,8 - 36,2 4,2 - 5,2				

Adjust the fuel delivery from each outlet according to the values in [

B. Governor Settings

deflection	rev/min	Control rod (ta	of control	rated sp	Control rod travei	Lower rated Degree of deflection of control	speed	Control rod travel	Sliding s	leeve travel
lover 1		rev/min (28	lever 4	rev/min 5	mm (4)	lever 7	rev/min 8	mm (3)	rev/min 10	mm 11
66°						10°	250 350 450 550	6,4-8,0 3,0-5,2 1,3-2,8 0		

Torque control travel a =

mm

C. Settings for Fuel Injection Pump with Fitted Governor

Full-load d Control-ro Test oil ter		Rotational-speed 2b limitation intermediate speed	Fuel deliv	vary characteristics 5a	Idle	fuel delivery 6	Torque- travei	Control roo
rev/min	cm ³ /1000 strokes	rev/min 44	rev/min	cm ³ /1000 strokes	rev/min	cm ³ /1000 strokes	rev/min	travel mm
1	2	3	4	5	6	7	8	9

Checking values in brackets

* 1 mm less control rod travel than col. 2

C. Settings for Fuel Injection Pump with Fitted Governor	C. \$	Settings :	for Fuel	Injection	Pump with	Fitted	Governor
--	-------	------------	----------	------------------	------------------	---------------	----------

-2-

Test oil temp. 40°C (104°F) (2) intermerbate speed rev/min Cm³/1000 strokes rev/min Cm³/1000 strokes rev/min Cm³/1000 strokes rev/min Cm³/1000 strokes rev/min cm³/1000 stro
AC-Nr. 4 320 754 1025 91,0-93,0 1040 700 99,0-103,0 100 90,0-130,0 300 19,0-25, AC-Nr. 4 320 793 1000 122,0-124,0 1020 700 126,0-130,0 100 90,0-130,0 300 19,0-25, AC-Nr. 4 320 815 900 100,0-106,0 910-920 700 101,0-107,0 100 90,0-130,0 300 19,0-25,
1025 91,0-93,0 1040 700 99,0-103,0 100 90,0-130,0 300 19,0-25, AC-Nr. 4 320 793 1000 122,0-124,0 1020 700 126,0-130,0 100 90,0-130,0 300 19,0-25, AC-Nr. 4 320 815 900 100,0-106,0 910-920 700 101,0-107,0 100 90,0-130,0 300 19,0-25,
1025 91,0-93,0 1040 700 99,0-103,0 100 90,0-130,0 300 19,0-25, AC-Nr. 4 320 793 1000 122,0-124,0 1020 700 126,0-130,0 100 90,0-130,0 300 19,0-25, AC-Nr. 4 320 815 900 100,0-106,0 910-920 700 101,0-107,0 100 90,0-130,0 300 19,0-25,
AC-Nr. 4 320 793 1000 122,0-124,0 1020 700 126,0-130,0 100 90,0-130,0 300 19,0-25, AC-Nr. 4 320 815 900 100,0-106,0 910-920 700 101,0-107,0 100 90,0-130,0 300 19,0-25,
1000 122,0-124,0 1020 700 126,0-130,0 100 90,0-130,0 300 19,0-25, AC-Nr. 4 320 815 900 100,0-106,0 910-920 700 101,0-107,0 100 90,0-130,0 300 19,0-25,
AC-Nr. 4 320 815 900 100,0-106,0 910-920 700 101,0-107,0 100 90,0-130,0 300 19,0-25,
900 100,0-106,0 910-920 700 101,0-107,0 100 90,0-130,0 300 19,0-25,
AC-Nr. 4 320 816
900 97,0-103,0 910-920 800 98,0-104,0 100 90,0-130,0 300 19,0-25,
AC-Nr. 4 320 817
1100 139,0-143,0 1120 800 149,0-154,0 100 90,0-130,0 375 9,0-19,
600 153,0-161,0
AC-Nr. 4 320 829
1100 139,0-143,0 1120 <u>800</u> 149,0-154,0 100 90,0-130,0 375 9,0-19, 600 153,0-161,0
AC-Nr. 4 320 933 900 102,0-110,0 1040 800 107.0-116.0 100 90.0-130.0 300 25.0
AC-Nr. 4 320 939
900 98,5 \pm 3 1040 700 107,5 \pm 4 100 90,0-130,0 300 25,0
AC-Nr. 4 320 940
900 78,0-86,0 1040 700 100,0-109,0 100 90,0-130,0 300 25,0
AC-Nr. 4 320 941
1025 91,0- 93,0 1040 700 99,0-103,0 100 90,0-130,0 300 19,0-25,0
AC-Nr. 4 320 942
1000 122,0-124,0 1020 700 126,0-130,0 100 90,0-130,0 300 19,0-25,0
AC-Nr. 4 320 980
900 108,0-116,0 1120 800 - 100 90,0-130,0 375 9,0-19,0
AC-Nr. 4 320 981
900 111,0-119,0 1020 800 112,0-118,0 100 90,0-130,0 300 25,0
AC-Nr. 4 321 016
750 95,0-101,0 1020 750 95,0-101,0 100 90,0-130,0 300 25,0
AC-Nr. 4 321 064
1000 112,0 1030 800 112,5 100 90,0-130,0 300 25,0

K 6

Full-load (Control-re	od stop	Breakaway	③	Full-load of Control-ro Test oil le		Starting dide	fuel delivery 6	Low idl	e speed 5 Control rod
rev/min	mp. 40°C (104°F) (2) cm³/1000 strokes	rev/min	•	rev/min	cm ³ /1000 strokes		cm ³ /1000 strokes	rev/min	travel
1	2	3		1	2	6	7	8	9
		•	•		•			•	
AC-Nr.	4 359 816								
900	100,0-106,0	910-920		700 600	101,0-107,0 111,0-117,0	100	90,0-130,0	300	19,0-25,
AC-Nr.	4 359 826								
900	97,0-103,0	910-920		800	98,0-104,0	100	90,0-130,0	300	19,0-25,
AC-Nr.	4 359 828								
1100	139,0-143,0	1120		800 600	149,0-154,0 153,0-161,0	100	90,0-130,0	375	9,0-19,
AC-Nr.	4 359 830								
1025	91,0- 93,0	1040		700	99,0-103,0	100	90,0-130,0	300	19,0-25,
AC-Nr.	4 359 832				•				
1000	122,0-124,0	1020		700	126,0-130,0	100	90,0-130,0	300	19,0-25,
AC-Nr.	4 392 693								
1050	205,0-215,0	1065-80		900	167,0-177,0	100	130,0-170,0	300	19,0-25,
	4 392 695				•				
900	149,0-155,0	920		_	•	-	•	300	19,0-25,
		320							,,
AC-Nr.		770		C00	222 0.220 0	100	120 0 170 0	200	10 0 25
750	185,0-191,0	770		600	222,0-228,0	100	130,0-170,0	300	19,0-25,
	4 392 699							•	
800	210,0-218,0	820		600	223,0-229,0	100	130,0-170,0	300	19,0-25,
AC-Nr.	4 392 701								
900	203,0-209,0	920		700	209,0-215,0	100	130,0-170,0	300	19,0-25,
AC-Nr.	4 392 703								
1050	220,0-230,0	1060-70		900	200,0-210,0	100	130,0-170,0	300	19,0-25
				700	205,0-215,0				
AC-Nr.	4 392 707								
1050	243,0-253,0	1060-80		900 700	222,0-232,0 235,0-245,0	100	130,0-170,0	300	19,0-25,
				700	233,0-243,0				
	4 392 709						444 5		
1000	217,0-223,0	1020		800 600	197,0-203,0 219,0-225,0	100	130,0-170,0	300	19,0-25,
10 N	A 200 744				,,.				
	4 392 711	620		_	_		_	300	19,0-25,
600	231,0-237,0	620		_	-	-	-	300	13,0-25,

			-			* * * ***	
C.	Settings	for	Fuel	Injection	Pump with	Fitted	Governor

rev/min 1				Test oil te	mp. 40°C (104°F)	awitchin	g point		die speed 5	
1	cm ³ /1000 strokes	rev/min	•	rev/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	reiv/min	travel	
	2	3		1	2	6	7	8	9	
	4 392 715	4070		000	474 0 400 0	400	120 0 170 0	200	40 0 00	
050	187,0-193,0	1070		900 700	174,0-180,0 175,0-181,0	100	130,0-170,0	300	19,0-25	
C-Nr.	4 392 717									
050	224,0-230,0	1070		800	185,0-191,0	100	130,0-170,0	300	19,0-25	
C-Nr.	4 392 719									
050	200,0-206,0	1070		900	190,0-196,0	100	130,0-170,0	300	19,0-25	
	•			700	214,0-220,0					
	4 392 721					400	400 0 400 0			
050	242,0-248,0	107 0		900 700	220,0-226,0 230,0-236,0	100	130,0-170,0	300	19,0-25	
C-Nr.	4 392 723									
750	244,0-250,0	770	•	700	253,0-259,0	100	130,0-170,0	300	19,0-25	
C-Nr.	4 392 725									
800	239,0-245,0	820	•	500	248,0-254,0	100	130,0-170,0	300	19,0-25	
C-Nr.	4 392 727									
900	232,0-238,0	920		700	253,0-259,0	100	130,0-170,0	300	19,0-25	
C-Nr.	4 392 729									
000	212,0-218,0	1020		800	230,0-236,0	100	130,0-170,0	300.	19,0-25	
C-Nr.	4 392 731									
900	288,0-294,0	920	•	700 .	287,0-293,0	100	130,0-170,0	300	27,0-33	
C-Nr.	4 392 735									
050	239,0-245,0	1070		900 700	233,0-239,0 273,0-279,0	100	130,0-170,0	300	19,0-25	
	4 000 707		•	, 40	213,0-213,0					
	4 392 737 215,0-221,0	1020	1	800	197,0-203,0	100	130,0-170,0	300	19.0-25	
500	213,0-221,0	1020		500	220,0-226,0		100,0 170,0		13,0 24	
C-Nr.	4 392 739				·					
050	207,0-213,0	1050		900	195,0-201,0	100	130,0-170,0	300	19,0-25	
			•	700	225,0-231,0					
	4 392 741	1070		900	202,0-208,0	100	130,0-170,0	_	_	
050	213,0-219,0	1070		700	230,0-236,0	: 00	130,0-170,0	_	-	
C-Nr.	4 392 743									
	220,0-226,0	1070		900 700	210,0-216,0 243,0-249,0	100	130,0-170,0	300	19,0-25	

Testoil-ISO 4113

J: 50

			A 1 Marie		_
C.	Settings	for Fuel	Injection	Pump with	Fitted Governor

Full-load Control-r Test oil ti		Breakaway intermodale spee		Full-load o Control-ro Test oil ter		Starting idle awitchin	fuel delivery 6	Low 1d	Control rod
rev/min	cm³/1000 strokes	rev/min	Θ	rev/min	cm ³ /1000 strokes	rev/min 6	cm³/1000 strokes	reiv/mur 8	travel mm
 	2	3		•	 	-			1
\C-Nr.	4 392 747								
1050	227,0-233,0	1070		900 700	208,0-214,0 247,0-253,0	100	130,0-170,0	300	19,0-25,
AC-Nr.	4 392 749								
1050	230,0-234,0	1070	-	•	•	100	130,0-170,0	300	19,0-25,
NC-Nr. 1050	4 392 750 230,0-234,0	1070	•	•	-	100	130,0-170,0	300	19,0-25,
AC-Nr.	4 392 768								
800	123,0-133,0	820	6	00	132,0-142,0	100	130,0-170,0	300	19,0-25,
AC-Nr.	4 392 775/776								
875	162,0-164,0	890	e	500	140,0-144,0	100	130,0-170,0	300	19,0-25,
C-Nr.	4 392 777								
950	205,0-207,0	970	7	700	195,0-199,0	100	130,0-170,0	300	19,0-25,
C-Nr.	4 392 778								
950	208,0-214,0	990	7	750	196,0-202,0	100	130,0-170,0	300	21,0-27,
NC-Nr.	3 392 779								
025	190,0-200,0	1030-40		000 900	191,0-201,0 178,0-188,0	100	130,0-170,0	300	19,0-25,
1C-Nn	4 392 781								
025	228,0-238,0	1050-60	9	900	205,0-215,0	100	130,0-170,0	300	19,0-25,
			7	700	207,0-217,0				
C-Nr.	4 392 953								
940	185,0-195,0	955-65	-	•	-	100	130,0-170,0	300	19,0-25,
C-Nr.	4 393 095								
050	211,0-221,0	1060-80		900 700	210,0-220,0 238,0-248,0	100	130,0-170,0	300	19,0-25,
\C-N=	4 393 307								
900	210,0-216,0	920	7	700	212,0-218,0	100	130,0-170,0	300	27,0-33,
	4 393 431								
050	208,0-214,0	1070		900	230,0-235,0	100	130,0-170,0	300	19,0-25,
			7	700	260,0-266,0				
	4 393 821	4070	_		000 0 000 0	400	400 0 470 0	202	40.0.00
050	242,0-248,0	1070		900 700	220,0-226,0 230,0-236,0	100	130,0-170,0	300	19,0-25,
					•				

JE 9

	ettings for ru		7	ad delivery (2)		fuel delivery (8)	Low idle speed 5		
Control	rod stop temp. 40°C (104°F) (2)	intermediate speed	Contro	i temp. 40°C (104°F)	idle switchli		Control rod		
rev/min			lev/mi			cm ³ /1000 strokes	rev/mur		
1	2	3	- 1	- 2	16	7	8	9	
A C _ N \	. 4 393 823								
1050	187,0-193,0	1070	900	174,0-180,0	100	120 0 170 0	200	40 0 05 0	
1030	107,0-133,0	1070	700	175,0-181,0		130,0-170,0	300	19,0-25,0	
AC-Nr.	. 4 393 825								
1050	224,0-230,0	1070	800	185,0-191,0	100	130,0-170,0	300	19,0-25,0	
AC-Nr.	. 4 393 827								
1050	200,0-206,0	1070	900 700	190,0-196,0 214,0-220,0	100	130,0-170,0	300	19,0-25,0	
AC-Nr.	4 393 829								
1050	230,0-234,0	1070	-	-	100	130,0-170,0	300	19,0-25,0	
AC-Nr.	4 393 831	•							
1050	213,0-219,0	1070	900 700	202,0-208,0 230,0-236,0	100	130,0-170,0	-	-	
AC-Nr.	4 393 833								
1050	264,0	1060-1080	900	280,5	100	130,0-170,0	300	19,0-25,0	
AC-Nr.	4 393 835								
1050	220,0-226,0	1070	900	210,0-216,0	100	130,0-170,0	300	19.0.25.0	
		•	700	243,0-249,0				,.,.,.	
AC-Nr.	4 393 837								
1050	227,0-233,0	1070	900 700	208,0-214,0 247,0-253,0	100	130,0-170,0	300	19,0-25,0	
AC-Nr.	4 393 890			·					
950	208,0-214,0	990	750	196,0-202,0	100	130,0-170,0	300	21,0-27,0	
AC-Nr.	4 393 891							•	
955	208,0	965-975	895	203,0	-		,	-	
AC-Nr.	4 393 961								
900	181,0-187,0	920	700	172,0-178,0	100	130,0-170,0	300 '	19.0-25.0	
AC-Nr.	4 394 001			· · · · · ·				,,.	
700	218,0-224,0	720	600	240,0-246,0	100	130,0-170,0	300 3)7 N_22 N	
				2.0,0 2.0,0		10030 17030	J00 2	.,,0-33,0	
950	4 394 017 208,0-214,0	990	750	106 0-202 0	100	120 0 470 0	202 -		
		J30	7 30	196,0-202,0	100	130,0-170,0	300 2	1,0-27,0	
	4 394 020	705	666	050 0 000					
700	249,0-257,0	725	600	258,0-264,0	100	130,0-170,0	300 1	9,0-29,0	

C. Settings for Fuel Injection Pun	np with Fitted Governor
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Control	d delivery -rod stop teinp. 40°C (104°F) (2)	Breakaway intermediate spee	Contro Test of	nd delivery Frod stop Lemp. 40°C (104°F)	Idle	itual delivery 6	Low ic	Control rod
revimin	cm³/1000 strokes	rev/min	4 revinue	cm³/1000 strokes	rev/min	cm³/1000 strokes	rév/m	travel n mm
1	2	3		2	6	7	8	9
•			•	•	•	•	•	•
AC-Nr.	. 4 394 062							
800	113,0-119,0	820	600	102,0-108,0	100	130,0-170,0	300	19,0-25,
AC-Nr.	. 4 394 064							
875	161,0-165,0	890	600	140,0-144,0	100	130,0-170,0	300	19.0-25.
AC-Nr.	. 4 394 066							,,
800	125,0-131,0	820	600	134,0-140,0	100	130,0-170-0	200	10 0 25
	•		-	10430 14030	100	130,5-170-0	300	19,0-25,
1025	4 394 068 192,0-198,0	1045	000	400 0 406 0	400			
		1045	900	180,0-186,0	100	130,0-170,0	300	19,0-25,
	4 394 070	4000						
1000	200,0-206,0	1020	800 600	180,0-186,0 189,0-195,0	. 100	130,0-170,0	300	19,0-25,
AC-N's	4 394 072			,				
940	185,0-195,0	955-65			400	400 0 470 0		
	•	333-03		-	100	130,0-170,0	300	19,0-25,6
	4 394 074							
1025	230,0-236,0	1040	900 700	207,0-213,0 209,0-215,0	100	130,0-170,0	300	19,0-25,0
A C _ Also	4 394 076		700	203,0-213,0				
1000	227,0-233,0	1020	200	407.0.002.0	400	400 0 400 0		
		1020	800	197,0-203,0	100	130,0-170,0	300	19,0-25,0
	4 394 078						•	
1000	235,0-241,0	1020	700	263,0-269,0	100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 080							
1000	220,0-226,0	1020	800	209,0-215,0	100	130,0-170,0	300 1	19,0,25,0
			600	227,0-233,0				
	4 394 082							
910	190,0	930	-	•	100	130,0-170,0	300 2	25,0
AC-Nr.	4 394 084							
900	160,0-166,0	920	700	139,0-145,0	100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 086							
600	124,0-130,0	620	-	-	100	130,0-170,0 3	300 1	9.N-25 N
AC-Nr.	4 394 088						1	-,,0
	127,0-133,0	720	600	124,0-130,0	100	120 0-170 0 0	000 2	0 0 0 0
		, EA	550	12490-13090	100	130,0-170,0 3	5UU 1	9,0-25,0
	4 394 090							
800	139,0-145,0	820	600	124,0-130,0	100	130,0-170,0 3	00 1	9,0-25,0

			1		_
	4	 	1 - 41 Barne	IAB	tted Governor
	CATTINAL	LIGI W	HACTION WITH	ara water bet	men isnvernar
	SELLIIUS	ruel a	nocuun pun		TERM MATERIAL
•		 			

Control	d delivery rod stop temp. 40°C (104°F)	Breakaway intermediate spe	Contro	nd delivery of rod stop if temp. 40°C (104°F)	ldle	itual delivery 6	Low id]	e speed 5
rev/min	cm³/1000 strokes	rev/min	rev/mi		rev/min	cm³/1000 strokes	rdv/min	
1-	2	3	- -	2	16		8	-
•								
	4 394 092							
925	157,0-163,0	945	800 600	145,0-151,0 134,0-140,0		130,0-170,0	300 1	19,0-25,
AC-Nr.	4 394 094							
1000	180,0-186,0	1020	800 700	154,0-160,0 142,0-148,0		130,0-170,0	300 1	19,0-25,
AC-Nr.	4 394 096							
1050	207,0-213,0	1070	900 800	161,0-175,0 147,0-153,0		130,0-170,0	300 1	9,0-25,
AC-Nr.	4 394 098							
900	187,0-193,0	920	700	162,0-168,0	100	130,0-170,0	300 2	27,0-33,
IC-Nr.	4 394 100							
900	200,0-206,0	920	700	184,0-190,0	100	130,0-170,0	300 2	27.0-33.
C-N-	4 394 102							, ,
900	203,0-209,0	920	700	209,0-215,0	100	120 0-170 0	200 4	0.0.25
	•	320	700	209,0-219,0	100	130,0-170,0	300 1	9,0-25,
	4 394 104							
750	185,0-191,0	770	600	222,0-228,0	100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 106							
800	210,0-218,0	820	600	223,0-229,0	100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 108							
050	222,0-228,0	1070	900	202,0-208,0	100	130,0-170,0	300 1	9,0-25,
		•	700	207,0-213,0				
C-Nr.	4 394 110							
000	240,0-246,0	1020	800	224,0-230,0	100	130,0-170,0	300 1	9,0-25,
			600	237,0-243,0				
	4 394 112							
050	245,0-251,0	1070	900 700	224,0-230,0 237,0-243,0	100	130,0-170,0	300 1	9,0-25,
C N.	4 204 444		, 00	207,0 240,0				
000	4 394 114 217,0-223,0	1020	800	107 0 202 0	400	420 0 470 0	000 4	5 0 0=
	•	1020	600	197,0-203,0 219,0-225,0	100	130,0-170,0	300 1	9,0-25,
	4 394 116							
900	210,0-216,0	920	700	212,0-218,0	100	130,0-170,0	300 2	7,0-33,
C-Nr.	4 394 118							
050	269,0-275,0	1070	900	281,0-287,0	100	130,0-170,0	300 19	9,0-25.0
			700	293,0-299,0				-,;

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C.	Settings fo	or Fuel Injecti	ion Pump wit	th Fitted (Sovemor
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Full-load (Control-re	od stop	Breakaway	Control-rod stop			fuel delivery 6	Low idl	e speed 5
Test oil te rev/min	mp. 40°C (104°F) (2)	rev/min	rev/min	lcm ³ /1000 strokes	rev/min	cm ³ /1000 strukes	rév/min	travel mm
1	2	3	1	2	6	7	8	9
	1				1		1	ı
C-Nr.	4 394 120							
050	234,0-240,0	1070	900 700	246,0-252,0 268,0-274,0		130,0-170,0	300	19,0-25
C-Nr.	4 394 122							
050	262,0-268,0	1070	900 700	279,0-285,0 289,0-295,0		130,0-170,0	300	19,0-25
C-Nr.	4 394 124							
050	241,0-247,0	1070	900 700	265,0-271,0 268,0-274,0		130,0-170,0	300	19,0-25
C-Nr.	4 394 126							
900	232,0-238,0	920	700	253,0-259,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 394 128							
750	244,0-250,0	770	700	253,0-259,0	100	130,0-170,0	300	19.0-25
	•		, , ,					
	4 394 130			040 0 054 (400	420 0 470 0		40 0 05
800	239,0-245,0	820	600	248,0-254,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 394 132							
000	212,0-218,0	1020	800	230,0-236,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 394 134							
900	288,0-294,0	920	700	287,0-293,0	100	130,0-170,0	300	27,0-33
C N	A 20A 126							
000	4 394 136 255,0-261,0	1020	800	272,0-278,0	100	130,0-170,0	300	10 0-25
000	255,0-261,0	1020	600	270,0-276,0		13030-17030	300	13,0-23
n Na	A 20A 420							
	4 394 138	1070	900	233,0-239,0	100	130,0-170,0	300	10 0-25
050	239,0-245,0	10/0	700	273,0-279,0		130,0-170,0	300	19,0-25
C-N=	4 394 140							
000	215,0-221,0	1020	800	197,0-203,0	100	130,0-170,0	300	19.0-25
	L10,0-£21,0	. 000	600	220,0-226,0			J	,
C-Nr	4 394 142							
900	222,0-228,0	920	700	254,0-260,0	100	130,0-170,0	300	19.0-25
		224						,
	4 394 144					444		
050	257,0-263,0	1070	750	272,0-278,0	100	130,0-170,0	300	27,0-33
C-Nr.	4 394 148							

C. Se									
Full-load Control-r Test oil to		Breakaway (2	Control-ro Test oil ter		Starting idle switchin	fuel delivery 6	Low idle speed 5		
rev/min	cm ³ /1000 strokes	rev/min	rev/min	cm ³ /1000 strokes	rev/min	cm²/1000 strokes	וענע/אין	travei mm	
1	2	3	1	2	6	7	8	0	
AC-Nr	4 394 150	•	•	•					
1050	268.0-274.0	1070	900	274,0-280,0	100	130,0-170,0	300	19.0-25.0	
1030	200,0-2/4,0	1070	700	280,0-286,0		100,0 170,0	500	13,0 23,0	
AC-Nr.	4 394 152								
1050	262,0-268,0	1070	900	267,0-273,0		130,0-170,0	300	19,0-25,0	
			700	267,0-273,0					
AC-Nr.	4 394 154								
1050	279,0-285,0	1070	900 700	283,0-289,0 293,0-299,0		130,0-170,0	300	19,0-25,0	
			700	233,0-233,0					
	4 394 156					400 0 400 0			
1050	296,0-302,0	1070	900 700	301,0-307,0 309,0-315,0		130,0-170,0	300	19,0-25,0	
A.CNim	A 20A 150								
AC-NF.	4 394 158 4 394 157								
1050	253,0-256,0	1070	900	252,0-258,0	100	130,0-170,0	300	19,0-25,0	
			700	269,0-275,0					
AC-Nr.	4 394 160								
1050	208,0-214,0	1070	900	230,0-235,0	100	130,0-170,0	300	19,0-25,0	
			700	260,0-266,0					
	4 394 162								
900	181,0-187,0	920	700	172,0-178,0	100	130,0-170,0	300	19,0-25,0	
AC-Nr.	4 394 164						•		
925	176,0-182,0	945	800	162,0-168,0	100	130,0-170,0	300	19,0-25,0	
			700	177,0-183,0					
	4 394 166								
900	173,0-179,0	920	800	160,0-166,0	100	130,0-170,0	300	19,0-25,0	
AC-Nr.	4 394 168								
925	237,0-243,0	945	800	251,0-257,0	100	130,0-170,0	300	27,0-33,0	
			700	269,0-275,0					
	4 394 170								
700	218,0-224,0	720	600	240,0-246,0	100	130,0-170,0	300	27,0-33,0	
AC-Nr.	4 394 176								
1050	213,0-219,0	1070	900	212,0-218,0	100	130,0-170,0	300	19,0-25,0	
			700	240,0-246,0					

C. Settings for Fuel Injection Pump with Fitted Govern	or
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Full-load d Control-ro		Breakaway 20	Fuel delin high ide s	very characteristics (se	Starting i Idle switchin		Low idl	e speed 5
rev/min	cm³/1000 strokes	rev/min 49		cm³/1000 strokes	rev <i>i</i> min	cm ³ /1000 strokes 7	rdv/min 8	travel
AC-Nr.	4 394 246						,	1
1050	211,0-220,0	1055-1075	975 700 600	237,5-247,0 258,5-269,5 255,5-266,0	;	130,0-170,0	300	19,0-25,0
	top part posi stop part po							
AC-Nr.	4 394 248					•		
700 600	246,0 263,0	720			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 250							
1050	244,5-254,5	1060-1080			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 257							
600	258,0			•	100	130,0-170,0	300	27,0
AC-Nr.	4 394 314							
1050 900 700	246,0 240,0 267,0	1070			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 331							
1050 900 700	241,0-247,0 265,0-271,0 268,0-274,0	1070			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 332							
1050 900 700	268,0-274,0 274,0-280,0 280,0-286,0	1070			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 347							
900	269,0-275,0 281,0-287,0 293,0-299,0	1070			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 348							
900	234,0-240,0 246,0-252,0 268,0-274,0	1070			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 349							
900	208,0-214,0 230,0-236,0 260,0-266,0	1070			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 350							
900	262,0-268,0 279,0-285,0 289,0-295,0	1070			100	130,0-170,0	300	19,0-25,0

C. S	Settings	for Fuel In	jection	Pump with	Fitted	Governor
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Full-load Control-	rod stop	Breakaway		Fuel deli high idle s	very characteristics (Se	idle	fuel delivery 6	Low idle speed 5		
1	emp. 40°C (104°F) (2)	i	4	i .		1	ng point		Control rod	
rev/min	cm ³ /1000 strokes	rev/min 3	9	rev/min	cm ³ /1000 strokes 5	6	cm ³ /1000 strokes	rev/min	9	
						1			<u> </u>	
	4 394 351									
1050 900 700	253,0-256,0 252,0-258,0 269,0-275,0	1070				100	130,0-170,0	300	19,0-25,	
AC-Nr.	4 394 352									
1050 900 700	262,0-268,0 267,0-273,0 267,0-273,0	1070				100	130,0-170,0	300	19,0-25,	
AC-Nr.	4 394 353									
1050 900 700	279,0-285,0 283,0-289,0 293,0-299,0	1070				100	130,0-170,0	300	19,0-25,0	
AC-Nr.	4 394 354				•					
1050 900 700	296,0-302,0 301,0-307,0 309,0-315,0	1070				100	130,0-170,0	300 1	19,0-25,0	
AC-Nr.	4 394 356									
1050 900 700	246,0 240,0 267,0	1070				100	130,0-170,0	300 1	9,0-25,0	
AC-Nr.	4 394 386									
600	167,0-175,0	620				100	130,0-170,0	300 2	25,0	
AC-Nr.	4 394 390									
900 700	259,0-267,0 238,0-246,0	925				100	130,0-170,0	300 1	9,0-29,0	
AC-Nr.	4 394 428									
	188,0-196,0 180,0-187,0	1025				100	130,0-170,0	300 2	5,0	
AC-Nr.	4 394 473									
	189,0-197,0 185,0-193,0	875				100	130,0-170,0	325 3	0,0	
AC-Nr.	4 394 501									
	175,0 158,0	925				100	130,0-170,0	300 1	9,0-25,0	
	4 394 521									
	239,0-247,0 229,0-235,0	1025				100	130,0-170,0	300 2	5,0	
IC-Nr.	4 394 527									
	161,0 151,0	925				100	130,0-170,0	300 19	9,0-25,0	

	Selivery	Breakaway 20	Fuel delh	very characteristics (5e	Starting	fuel delivery 6	Low id	le speed 5
Control-ro Test oil te	mp. 40°C (104°F) (2)	intermediate speed	lugu ase s	peed ®	switchin	g point		Control roo
rev/min	cm ³ /1000 strokes	rev/min 4a	rev/min	cm ³ /1000 strolles	rev/min	cm³/1000 strokes	rev/min	travel mm
1	2	3	4	5	6	7	8	9
C-Nr.	4 394 541	•	•	•			•	•
050	202,0-210,5	1060-1080.			100	130,0-170,0	300	19,0-25
C-Nr.	4 394 550							
000	230,5-239,5	1010-1030			100	130,0-170,0	300	19,0-25
C-Nr.	4 394 561							
050	258,0	1060-1080			100	130,0-170,0	300	19,0-25
900	256,0							
	4 394 564	4000						
050 900	244,0 234,0	1070			100	130,0-170,0	300	19,0-25
C-Nr.	4 394 569			•				
000	203,0-211,5	1010-1030		•	100	130,0-170,0	300	19.0-25
C-Nr.	4 394 590							,.
050	260,5-271,0	1060-1080			100	130,0-170,0	300	19.0-25
eginn e "02	ing of movemen	t: 0,40 - 0,	45 bar	at 750 PRM a				
	4 394 593	•						
050	251,5-261,5	1060-1080			100	130,0-170,0	300	19,0-25
C-Nr.	4 394 703							·
050	260,5-271,0	1060-1080	900	267,0-278,0	100	130,0-170,0	300	19.0-25.
btain ar pr	top part posit mean curve ab essure, gap sh	ove. Beginni	ng of :	267,0-278,0 tity at 1050 movement: 0,4	PRM. /	Adjust stop p ,45 bar at 75	art p 50 PRM	osition 1 and 0,
	4 394 705 4 394 706							
	258,0 ° 256,0	1060-1080			100	130,0-170	300	19,0-25,
-Nr.	4 394 707							
	244,0 234,0	1070	٠		100	130,0-170,0	300 1	19,0-25,
_N _P	4 394 718							
-141	100 0 242 0	965-975			100	130,0-170,0	300 2	21,0-27,
55	198,0-213,0 196,0-210,0							
55 00			•					
55 00 -Nr. 4	196,0-210,0	915	٠		100	130,0-170,0	300 2	1,0-27,
55 00 -Nr. 4 75	196,0-210,0 4 394 719 166,0-168,0	915	•		100	130,0-170,0	300 2	1,0-27,

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C. Se	ttings fo	or Fuel	!njection	Pump with	Fitted	Governor
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Control-	d delivery rod stop	Breakaway 20	Fuel deli-	very characteristics (5e)	idle	fuel delivery 6	Low idle speed 5		
	temp. 40°C (104°F) 2	entermediate speed		•	awitchir	ng point Í		Control rod travel	
rev/min		rev/min 49	rev/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	rev/mir	1	
1	2	3		5	6	'	8	9	
AC-Nr	. 4 394 740/741								
1020 915	213,0-226,0 208,0-218,0	1030-1040							
AC-Nr	. 4 394 744								
1050 900	250,0 256,0	1060-1080			100	130,0-170,0	300	19,0-25,	
AC-Nr.	. 4 394 745								
950 750	208,0-214,0 196,0-202,0	990			100	130,0-170,0	300	21,0-27,0	
AC-Nr.	4 394 746								
875 600	161,0-165,0 140,0-144,0	890			100	130,0-170,0	300	19,0-25,	
AC-Nr.	4 394 771			•					
800 600	113,0-119,0 102,0-108,0	820			100	130,0-170,0	300	19,0-25,0	
AC-Nr.	4 394 773								
800 600	125,0-131,0 134,0-140,0	820			100	130,0-170,0	300	19,0-25,0	
AC-Nr.	4 394 775								
1025 900	192,0-198,0 180,0-186,0	1045			100	130,0-170,0	300	19,0-25,0	
AC-Nr.	4 394 777								
1000 800 600	200,0-206,0 180,0-186,0 189,0-195,0	1020			100	130,0-170,0	300	19,0-25,0	
AC-Nr.	4 394 779							15'	
940	185,0-195,0	955-65			100	130,0-170,0	300	19.0-25.0	
AC-Nr	4 394 781		•					.,,,	
1025 900	230,0-236,0 207,0-213,0	1040		ø	100	130,0-170,0	300	19,0-25,0	
700	209,0-215,0			•					
	4 394 783								
1000 800	227,0-233,0 197,0-203,0	1020		•	100	130,0-170,0	300	19,0-25,0	
AC-Nr.	4 394 785		•						
1000 700	235,0-241,0 263,0-269,0	1020			100	130,0-170,0	300 1	9,0-25,0	

C. §	Settings f	or Fuel Injection	Pump with	Fitted Governor
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U. 56	ettings for Fu	iei mieci		_		_	AGLIIOL	h		
Full-toad Control-r	delivery od stop	Breakaway	②	Fuel deli	very characteristics 5a	Starting	fuel delivery 6	Low idle speed 5		
	emp. 40°C (104°F) 2	mennedate sp			pased ®	awitchir	g point		Control rod	
rev/min	cm ² /1000 strokes	rev/min	(0)	rev/min	cm ³ /1000 strokes	1	cm³/1000 strokes	rev/min	mm	
1	2	3		4	5	6	/	8	9	
AC-Nr.	4 394 787									
1000	220,0-226,0	1020				100	130,0-170,0	300	19,0-25,0	
800	209,0-215,0									
600	227,0-233,0									
AC-Nr.	4 394 789									
910	190,0	930				100	130,0-170,0	300	25,0	
AC-Nr.	4 394 791									
900	160,0-166,0	920				100	130,0-170,0	300	19,0-25,0	
700	139,0-145,0				•					
AC-Nr.	4 394 793									
600	124,0-130,0	620				100	130,0-170,0	300	19,9-25,	
AC-Nr.	4 394 795									
700	127,0-133,0	720				100	130,0-170,0	300	19,0-25,0	
600	124,0-130,0									
AC-Nr.	4 394 797									
800	139,0-145,0	820				100	130,0-170,0	300	19,0-25,0	
600	124,0-130,0									
AC-Nr.	4 394 799									
925	157,0-163,0	945				100	130,0-170,0	300	19,0-25,0	
800	145,0-151,0									
600	134,0-140,0									
	4 394 801									
1000 800	180,0-186,0 154,0-160,0	1020				100	130,0-170,0	300	19,0-25,0	
700	142,0-148,0									
AC-Nr.	4 394 803									
1050	207,0-213,0	1070				100	130,0-170,0	300	19,0-25-0	
900	161,0-175,0	.0,0					,,.	- • •	,	
800	147,0-153,0									
AC-Nr.	4 394 805									
900	187,0-193,0	920				100	130,0-170,0	300	27,0-33,0	
700	162,0-168,0									
AC-Nr.	4 394 807									
900	200,0-206,0	920		,		100	130,0-170,0	300	27,0-33,0	
700	184,0-190,0									
AC-Nr.	4 394 809									
900	203,0-209,0	920				100	130,0-170,0	300	19,0-25,0	
700	209,0-215,0									

3.	Settings	for Fuel In	jection	Pump with	Fitted	Governor
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Full-load of Control-ro		Breakaway	a	Fuel delin	very characteristics (56 poed (30)	Starting in	uel delivery 6	Low idl	e speed 5
Test oil le	mp. 40°C (104°F) (2)	intermediate spi				switching	g point		Control rod travel
ten/uniu	cm ³ /1000 strokes	rev/min	(4)	rev/min	cm ³ /1000 strokes	1 1	cm ³ /1000 strokes	rev/min	ww
1	2	3			5	6	7	8	9
AC-Nr.	4 394 811	•							
		770				100	130,0-170,0	200	10 0-25
750 600	185,0-191,0 222,0-228,0	770				100	130,0-170,0	300	19,0-25,
AC-Nr.	4 394 813								
800 600	210,0-218,0 223,0-229,0	820				100	130,0-170,0	300	19,0-25,
AC-Nr.	4 394 815								
1050	222,0-228,0	1070				100	130,0-170,0	300	19.0-25.
900 700	202,0-208,0 207,0-213,0						•		
AC-Nr.	4 394 817		-						
1000	240,0-246,0	1020				100	130,0-170,0	300	19,0-25,
800 600	224,0-230,0 237,0-243,0				·				•
AC-Nr.	4 394 819								
1050	245,0-251,0	1070				100	130,0-170,0	300	19,0-25,
900 700	224,0-230,0 237,0-243,0								
AC-Nr.	4 394 821								
1000	217,0-223,0	1020				100	130,0-170,0	300	19,0-25,
800 600	197,0-203,0 219,0-225,0								
AC-Nr.	4 394 823								
900	210,0-216,0	920				100	130,0-170,0	300	27,0-33,
700	212,0-218,0								
AC-Nr.	4 394 825								
	269,0-275,0	1070				100	130,0-170,0	300	19,0-25,
900 700	281,0-287,0 293,0-299,0								
C-Nr.	4 394 827								
1050	234,0-240,0	1070				100	130,0-170,0	300	19.0-25.
900	246,0-252,0	1070							,,
700	268,0-274,0								
IC-Nr.	4 394 829								
050	262,0-268,0	1070				100	130,0-170,0	300	19,0-25,
900 700	279,0-285,0 289,0-295,0								
	4 394 831	1070				100	130 0_170 0	300	10 0-25
900	241,0-247,0 265,0-271,0	1070				100	130,0-170,0	300	13,0-25,
700	268,0-274,0								

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			*			
C.	Settings	for Fuel	Injection	Pump with	Fitted	Governor

-17-

	ruei aljet								
d delivery Frod stop temp. 40°C (104°F)	Breakaway (2) Intermediate :	_			Uldle		6	Low idl	Control ro
cm³/1000 strokes	rev/min	•	rev/min	cm ³ /1000 strokes	rev/min	cm ³ /1000 strok	es	ráv/min	travel mm
2	3		4	5	6	17		8	9
4 204 022									
	000								
					100	130,0-17	0,0	300 1	9,0-25,
4 394 835									
					100	130,0-17	0,0	300 1	9,0-25,
4 394 837									
					100	130,0-176	0,0	300 1	9,0-25,
4 394 839									
					100	130,0-170	0,0	300 1	9,0-25,
4 394 841									
288,0-294,0 287,0-293,0	920				100	130,0-170	0,0	300 2	7,0-33,
4 394 843									
255,0-261,0 272,0-278,0 270,0-276,0	1020				100	130,0-170	,0 :	300 19	9,0-25,
4 394 845									
239,0-245,0 233,0-239,0 273,0-279,0	1070				100	130,0-170	,0 3	300 19	9,0-25,0
4 394 847									
215,0-221,0 197,0-203,0 220,0-226,0	1020				100	130,0-170	,0 3	00 19	,0-25,0
4 394 849									
222,0-228,0 254,0-260,0	920 .				100	130,0-170	,0 3	00 19	,0-25,0
4 394 851									
257,0-263,0 272,0-278,0	1070				100	130,0-170	,0 3	00 27	,0-33,0
4 394 853									
295,0-303,0 309,0-315,0	1075				100	130,0-170,	0 3	00 25	•0
394 857									
262,0-268,0	1070				100	130,0-170,	0 0	••	
	4 394 833 232,0-238,0 253,0-259,0 4 394 835 244,0-250,0 253,0-259,0 4 394 837 239,0-245,0 248,0-254,0 4 394 841 288,0-294,0 230,0-236,0 4 394 843 255,0-261,0 272,0-278,0 270,0-276,0 4 394 845 239,0-245,0 270,0-276,0 4 394 845 239,0-245,0 273,0-279,0 4 394 847 215,0-21,0 197,0-203,0 273,0-279,0 4 394 847 215,0-221,0 197,0-203,0 273,0-279,0 4 394 847 215,0-221,0 197,0-203,0 273,0-279,0 4 394 847 215,0-221,0 197,0-203,0 273,0-279,0 4 394 847 215,0-221,0 197,0-203,0 273,0-279,0 4 394 849 222,0-228,0 272,0-278,0 4 394 851 257,0-263,0 272,0-278,0 4 394 853 295,0-303,0 394 853	### 40°C (104°F) (2) ###################################	rood stoop (104°F) (2) Intermediate speed (27)/1000 strokes (28) (29)/1000 strokes (A 394 833 232,0-238,0 253,0-259,0 A 394 835 244,0-250,0 253,0-259,0 A 394 837 239,0-245,0 230,0-236,0 A 394 841 288,0-294,0 287,0-293,0 A 394 843 255,0-261,0 272,0-278,0 273,0-279,0 A 394 845 239,0-245,0 272,0-278,0 273,0-279,0 A 394 845 239,0-245,0 272,0-278,0 273,0-279,0 A 394 847 215,0-221,0 215,0-221,0 2197,0-203,0 220,0-226,0 A 394 849 222,0-228,0 220,0-226,0 A 394 849 222,0-228,0 2254,0-260,0 A 394 853 295,0-303,0 394 853 295,0-303,0 394 853 295,0-303,0 394 857	A 394 833 232,0-238,0 920 253,0-259,0 770 253,0-259,0 4 394 837 239,0-245,0 230,0-236,0 4 394 841 288,0-294,0 920 287,0-293,0 4 394 843 255,0-261,0 1020 272,0-278,0 273,0-279,0 4 394 845 239,0-245,0 272,0-278,0 273,0-279,0 4 394 845 239,0-245,0 272,0-278,0 273,0-279,0 4 394 847 215,0-201,0 1020 272,0-278,0 273,0-279,0 4 394 847 215,0-201,0 1020 272,0-278,0 273,0-279,0 4 394 849 222,0-228,0 920 273,0-279,0 4 394 849 222,0-228,0 920 273,0-278,0 273,0-279,0 4 394 849 272,0-278,0 272,0-278,0 272,0-278,0 272,0-278,0 273,0-279,0 4 394 849 272,0-278,0 273,0-279,0 4 394 849 272,0-278,0 3 394 851 257,0-263,0 1070 272,0-278,0 3 394 853 295,0-303,0 3 394 857 3 394 857 3 394 857	100 100	100 100	Total short (104*7) Total street Total short Total	### ### ### ### ### ### ### ### ### ##

K21

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Full-load Control-r Test oil ti			Fuel deli- high idle :	revy characteristics (56 peed (36)	Starting Idle switching	fuel delivery 6	Low id)	e speed 5 Control rod
rev/min	cm ³ /1000 strokes	rev/min	rev/min	cm³/1000 strokes	rev/min	cm³/1000 strokes	reiv/mun	travel mm
1	2	3	4	5	6	7	8	9
	•	•	•	•	,		' '	
C-Nr.	4 394 861							
050 900 700	296,0-302,0 301,0-307,0 309,0-315,0	1070			100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 863							
050 900 700	253,0-256,0 252,0-258,0 269,0-275,0	1070			100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 865							
050 900 700	208,0-214,0 230,0-236,0 260,0-266,0	1070			100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 867							
900 700	181,0-187,0 172,0-178,0	920			100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 869							
925 800 700	176,0-182,0 162,0-168,0 177,0-183,0	945			100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 871							
900 800	173,0-179,0 160,0-166,0	920			100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 873					•		
925 800 700	237,0-243,0 251,0-257,0 269,0-275,0	945			100	130,0-170,0	300 2	7,0-33,
C-Nr.	4 394 875							
700 600	218,0-224,0 240,0-246,0	720			100	130,0-170,0	300 2	7,0-33,
C-Nr.	4 394 877							
050 900 700	213,0-219,0 212,0-218,0 240,0-246,0	1060-1080			100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 879							
050	211,0-220,0	1055-1075	975 700 600	237,5-247,0 258,5-269,5 255,5-266,0	100	130,0-170,0	19,0-	25,0

Tilt stop part position to obtain quantity at 1050 PRM. Adjust stop part position to obtain mean curve above.

K22

C. Settings fo	r Fuel Injection	Pump with	Fitted G	overnor

	Full-load d Control-ro Test oil ter rev/min	d stop np. 40°C (104°F) 2	Breakaway 200 Intermediate speed rev/min 40 3	ingh ate (cm ³ /1000 strokes	switchir		Low idle reiv/min 8	Control rod travel mm
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	rev/miņ	cm ³ /100) strokes	rev/min 4	rav/min	cm ³ /1000 strokes	rev/min	cm ³ /1000 strokes	rev/min	travel mm
ŀ	1	2		3	4	5	6	7	8	9
A	C-Nr	. 4 394	881							
	700 600	246,0 263,0	•	720			100	130,0-170,0	300	19,0-25,0
Α	C-Nr.	4 394	883							
1	050	244,5-	254,5	1060-1080			100	130,0-170,0	300	19,0-25,0
A	C-Nr.	. 4 394	885							
- (600	258,0					100	130,0-170,0	300	27,0
A	C-Nr.	4 394	891							
(600	167,0-	175,0	620			100	130,0-170,0	300	25,0
A	C-Nr.	4 394	893			•			•	
	900 700	259,0- 238,0-		925			100	130,0-170,0	300	19,0-29,0
AC	-Nr.	4 394	8 95 _.							
	000 300	188,0- 180,0-		1025			100	130,0-170,0	300 2	25,0
AC	-Nr.	4 394 8	897							
	50 50	189,0- 185,0-		875			100	130,0-170,0	325 3	30,0
AC	-Nr.	4 394 8	399							
	00	175,0 158,0		925			100	130,0-170,0	300 1	9,0-25,0
AC	-Nr.	4 394 9	905							
10 7	00 00	239,0-2 229,0-2		1025			100	130,0-170,0	300 2	5,0
AC	-Nr.	4 394 9	07							
8	00 00	161,0 151,0		925			100	130,0-170,0	300 1	9,0-25,0
				: 0,40 - 0,4 p should be		at 750 PRM an	d			
		4 394 9								
105		202,0-2		1060-1080			100	130,0-170,0	300 1	9,0-25,0
		4 394 9								
100	00	230,5-2	39,5	1010-1030			100	130,0-170,0 3	300 19	9,0-25,0
AC-	-Nr.	4 394 9	15							
100	00	203,0-2	11,5	1010-1030			100	130,0-170,0 3	300 19	9,0-25,0

C. Settings for Fuel Injection Pump with Fitted Governor

Contro	delivery rod step lemp. 40°C (104°F) (2)	Breakaway (26)	Fuel delin high idle t	very characteristics (5e poed (5)	Starting Idle switchir		Low id)	e speed 5
rev/mu	cm³/1000 strokes	rev/min 49	rev/min	cm ³ /1000 strokes	rev/min	cm ³ /1000 strokes	reiv/min	travel mm
<u>'</u>	12	3	-	3	6	/	8	9

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AC-Nr. 4 394 917

1050 260.5-271.0 1060-1080 100 130,0-170,0 300 19,0-25,0

Beginning of movement: 0,40 - 0,45 bar at 750 PRM and

0,90 bar pressure, gap should be "020".

AC-Nr. 4 394 919

1050 215,5-261,5 1060-1080 100 130,0-170,0 300 19,0-25,0

AC-Nr. 4 394 921

1050 260,5-271,0 1060-1080 900

267,0-278,0 100 130,0-170,0 300 19,0-25,0

267,0-278,0 700

Tilt stop part position to obtain quantity at 1050 PRM. Adjust stop part position to obtain mean curve above. Beginning of movement: 0,40 - 0,45 bar at 750 PRM and 0,90 bar pressure, gap should be "020".

AC-Nr. 4 394 925

1050 244,0 1070

100 130,0-170,0 300 19,0-25,0

900 234,0

AC-Nr. 4 394 997

900 173,0-179,0 800 160,0-166,0 920

100 130,0-170,6 300 19,0-25,0

Test Specifications Fuel Injection Pumps 1 and Governors

WPP 001/4 ALO 16.0 f

PE 6 P 120 A 420 LS 245 0 401 846 302

ROV 300...1050 PA 239 KR

companyAllis-Chalmers

1 - 5 - 3 - 6 - 2 - 4
Values only apply to test nozzle-and-holder assembly 0 681 443 022 and fuel-injection test tubing 9 681 230 703.

All test specifications are valid for Bosch Fuel Injection Pump Test Benches and Testers

A. Fuel Injection Pump Settings

Port closing at prestroke

2.8 + 0.1

mm (from BDC)

Rotational speed rev/min	Control rod travel mm 2	Fuel delivery cm ³ /100 strokes 3	Difference cm ³ / 100 strokes 4	Control rod travel mm 2	Fuel delivery cm ³ /100 strokes 3	Spring pre-tensioning (torque-control valve) mm 6
1000	12	26,4 - 27,1			1,0	_
600	6 12 15	8,6 - 9,8 26,3 - 28,1 33,8 - 36,2				
200	6	4,2 - 5,2				

Adjust the fuel delivery from each outlet according to the values in [

B. Governor Settings

deflection	peed rav/min Control rod travel mm	Control rod ta travel mm rev/min 28	of control	rated sp rev/min 5	Control rod travel mm 4	Lower rated Degree of deflection of control lever 7	speed rev/min 8	Control rod travel mm 3	Sliding s rev/min 10	mm
66°		0,7				10°	250 350 450 550	6,4-8,0 3,0-5,2 1,3-2,8 0		

Torque control travel a =

C. Settings for Fuel Injection Pump with Fitted Governor

Fell-load d Control-ros Test oil ten	d stop np. 40°C (104°F) 2	Rotational-speed ② limitation intermediate speed rev/min	Fuel delivingh idle s	rery characteristics 5a peed 5b cm³/1000 strokes	Starting Idle awitchin	ng point	Torque- travel	Control 5 Control rod travel mm
1	2	3	4	5	6	7	8	9

Checking values in brackets

* 1 mm less control rod travel than col. 2

<u>C. 5</u>	ettings for Fu			np with ritte	a Go		ll ou 3	dle speed
Contro	id delivery I-rod stop I temp. 40°C (104°F)	Breakaway (intermediate speed	Contro	d delivery Fred stop I temp. 40°C (104°F)	Idle	fuel delivery 6	LOW	الع
tex/min			49 rev/mir		ł	cm³/1000 strokes	ráv/m	Control rod : travel in mm
1	2	3	1	2	6	7	8	9
						!		
AC-Nr.	. 4 320 754							
1025	91,0- 93,0	1040	700	99,0-103,0	100	90,0-130,0	300	19,0-25,0
AC-Nr.	. 4 320 793							
1000	122,0-124,0	1020	700	126,0-130,0	100	90,0-130,0	300	19,0-25,0
AC-Nr.	4 320 815							
900	100,0-106,0	910-920	700 600	101,0-107,0 111,0-117,0	100	90,0-130,0	300	19,0-25,0
AC-Nr.	4 320 816							
900	97,0-103,0	910-920	800	98,0-104,0	100	90,0-130,0	300	19,0-25,0
AC-Nr.	4 320 817							
1100	139,0-143,0	1120	800	149,0-154,0	100	90,0-130,0	375	9,0-19,0
			600	153,0-161,0				
AC-Nr.	4 320 829							•
1100	139,0-143,0	1120	800 600	149,0-154,0 153,0-161,0	100	90,0-130,0	375	9,0-19,0
AC-Nr.	4 320 933		,					
900	102,0-110,0	1040	800	107,0-116,0	100	90,0-130,0	300	25,0
AC-Nr.	4 320 939		•					
900	98,5 + 3	1040	700	107,5 + 4	100	90,0-130,0	300	25,0
AC-Nr	4 320 940			-				
900	78,0-86,0	1040	700	100,0-109,0	100	90,0-130,0	300	25,0
			700	.00,0 :05,0	100	30,0-130,0	300	25,0
1025	4 320 941	4040	700	00 0 400 0	400	00 0 100 0		
	91,0- 93,0	1040	700	99,0-103,0	100	90,0-130,0	300	19,0-25,0
	4 320 942							
1000	122,0-124,0	1020	700	126,0-130,0	100	90,0-130,0	300	19,0-25,0
AC-Nr.	4 320 980							
900	108,0-116,0	1120	800	-	100	90,0-130,0	375	9,0-19,0
AC-Nr.	4 320 981							
900	111,0-119,0	1020	800	112,0-118,0	100	90,0-130,0	300	25,0
AC-Nr.	4 321 016							
750	95,0-101,0	1020	750	95,0-101,0	100	90,0-130,0	300	25,0
AC-Nr.	4 321 064					-		• •
1000	112,0	1030	800	112,5	100	90,0-130,0	300	25,0
								, -

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Full-load delivery Control-rod stop Test oil temp. 40°C (104°F) (2)				Full-load delivery Control-rod stop Test oil temp. 40°C (104°F)		Starting idle switching	fuel delivery (6) g point	Low idle speed 5	
rev/min	cm³/1000 strokes	rev/min 3	@	/min	cm³/1000 strokes	res/min	cm ³ /1000 strokes	rev/min 8	travel mm
1	2	-	-						
C-N-	4 359 816								
900	100,0-106,0	910-920	70 60		101,0-107,0 111,0-117,0	100	90,0-130,0	300	19,0-25
IC-Nr	4 359 826								
900	97,0-103,0	910-920	80	0	98,0-104,0	100	90,0-130,0	300	19,0-25
	4 359 828								
100	139,0-143,0	1120	80 60		149,0-154,0 153,0-161,0	100	90,0-130,0	375	9,0-19
NC-Nr.	4 359 830 91,0- 93,0	1040	70	ın	99,0-103,0	100	90,0-130,0	300	19.0-25
	•	1040			•	,,,,			,.
1000	4 359 832 122,0-124,0	1020	70	0	126,0-130,0	100	90,0-130,0	300	19,0-25
AC-Nr.	4 392 693								
1050	205,0-215,0	1065-80	90	10	167,0-177,0	100	130,0-170,0	300	19,0-25
AC-Nr.	4 392 695								
900	149,0-155,0	920	-		-	-	-	300	19,0-25
C-Nr.	4 392 697								
750	185,0-191,0	770	60	10	222,0-228,0	100	130,0-170,0	300	19,0-25
	4 392 699								
800	210,0-218,0	820	60	10	223,0-229,0	100	130,0-170,0	300	19,0-25
	4 392 701	320	-	-				-	• •
900	203,0-209,0	920	70	10	209,0-215,0	100	130,0-170,0	300	19.0-25
		520	,,		203,0 210,0		100,0 170,0		10,0 40
	4 392 703	1060-70	90	ın	200,0-210,0	100	130,0-170,0	300	10 0-25
1050	220,0-230,0	1000-70	70		205,0-215,0		130,0-170,0	300	13,0743
AC-Nr.	4 392 707								
1050	243,0-253,0	1060-80	90	0	222,0-232,0	100	130,0-170,0	300	19,0-25
	,		70		235,0-245,0		•		
AC-Nr.	4 392 709								
000	217,0-223,0	1020	80		197,0-203,0		130,0-170,0	300	19,0-25
			60	IU	219,0-225,0				
	4 392 711								
600	231,0-237,0	620	-		-	•	-	300	19,0-25

Full-load Control-re Test oil te		Breakaway (Control	Full-load delivery 2 Control-rod stop Test oil temp. 40°C (104°F)		Starting fuel delivery 6 idle switching point		Low idle speed 5	
rev/min	cm ³ /1000 strokes	rev/min (ev/min	cm³/1000 strokes	rev/min	cm³/1000 strokes	rev/mm	travel	
1	2	3	1	2	6	7	8	9	
	1	•	•	1			i	1	
C-Nr.	4 392 715								
050	187,0-193,0	1070	900 700	174,0-180,0 175,0-181,0	100	130,0-170,0	300	19,0-25	
C-Nr.	4 392 717								
050	224,0-230,0	1070	800	185,0-191,0	100	130,0-170,0	300	19,0-25	
C-Nr	4 392 719								
050	200,0-206,0	1070	900 700	190,0-196,0 214,0-220,0	100	130,0-170,0	300	19,0-25	
C_Nix	4 392°721								
050	242,0-248,0	1070	900 700	220,0-226,0 230,0-236,0	100	130,0-170,0	300	19,0-25	
C-Nr.	4 392 723								
750	244,0-250,0	770	700	253,0-259,0	100	130,0-170,0	300	19,0-25	
C-Nr.	4 392 725								
800	239,0-245,0	820	600	248,0-254,0	100	130,0-170,0	300	19,0-25	
C-Nr.	4 392 727								
900	232,0-238,0	920	700	253,0-259,0	100	130,0-170,0	300	19,0-25	
C-Nr.	4 392 729								
000	212,0-218,0	1020	800	230,0-236,0	100	130,0-170,0	300.	19,0-25	
C-N×	4 392 731								
900	288,0-294,0	920	700	287,0-293,0	100	130,0-170,0	300	27.0-33	
		320	, 00	20,,0 230,0		.00,0 .70,0		_,,0 00	
	4 392 735	1070	900	233,0-239,0	100	130,0-170,0	300	10 0-25	
050	239,0-245,0	10/0	700	273,0-279,0	100	130,0-1/0,0	300	13,0-23	
C-Nr	4 392 737								
000	215,0-221,0	1020	800	197,0-203,0	100	130,0-170,0	300	19.0-25	
	,		600	220,0-226,0			~~~	,	
C-Nr.	4 392 739								
050	207,0-213,0	1050	900	195,0-201,0	100	130,0-170,0	300	19,0-25	
			700	225,0-231,0					
C-Nr.	4 392 741								
050	213,0-219,0	1070	900 700	202,0-208,0 230,0-236,0	100	130,0-170,0	-	-	
C-Nr.	4 392 743								
050	220,0-226,0	1070	900 700	210,0-216,0 243,0-249,0	100	130,0-170,0	300	19,0-25	

C.	Settings	for Fu	iel In	ection	Pump	with	Fitted	Governor

Full-load of Control-ro Test oil te	delivery od stop mp. 40°C (104°F) 2	Breakaway intermediate speed	Control	d delivery rod stop temp. 40°C (104°F)	Starting Idie switchin	fuel delivery 6	LOW 1d	Control roo
rev/min	cm³/1000 strokes		rev/min			cm ³ /1000 strokes	rev/mun 8	mm O
1	2	3	- '	3	6		-	
C-Nr.	4 392 747							
050	227,0-233,0	1070	900 700	208,0-214,0 247,0-253,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 392 749 230,0-234,0	1070 ·		~	100	130,0-170,0	300	19,0-25
IC-Nr.	4 392 750 230,0-234,0	1070	-	•	100	130,0-170,0	300	19,0-25
C-Nr. 800	4 392 768 123,0-133,0	820	600	132,0-142,0	100	130,0-170,0	300	19,0-25
NC-Nr. 875	4 392 775/776 162,0-164,0	890	600	140,0-144,0	100	130,0-170,0	300	19,0-25
C-Nr. 950	4 392 777 205,0-207,0	970	700	195,0-199,0	100	130,0-170,0	300	19,0-25
C-Nr. 950	4 392 778 208,0-214,0	990	750	196,0-202,0	100	130,0-170,0	300	21,0-27
IC-Nr. 025	3 392 779 190,0-200,0	1030-40	1000 900	191,0-201,0 178,0-188,0	100	130,0-170,0	300	19,0-25
NC-Nr. 025	4 392 781 228,0-238,0	1050-60	900 700	205,0-215,0 207,0-217,0	100	130,0-170,0	300	19,0-25
C-Nr. 940	4 392 953 185,0-195,0	955-65	•	-	100	130,0-170,0	300	19,0-25
050	4 393 095 211,0-221,0	1060-80	900 700	210,0-220,0 238,0-248,0	100	130,0-170,0	300	19,0-25
C-Nr. 900	4 393 307 210,0-216,0	920	700	212,0-218,0	100	130,0-170,0	300	27,0-33
C-Nr. 050	4 393 431 208,0-214,0	1070	900	230,0-235,0	100	130,0-170,0	300	19,0-25
.C-Nr. 050	4 393 821 242,0-248,0	1070	700 900 700	260,0-266,0 220,0-226,0 230,0-236,0	100	130,0-170,0	300	19,0-25

		-			
	Callings	ton Parol In	inchion Burns	sanikla Elika al	C
	Settings	ror Puel In	ecton Pumo	wan earen	Lanvernor
•	Cottonia .		jection Pump	******	

Full-load Control- Test oil t	I delivery rod stop emp. 40°C (104°F) (2)	Breakaway (Control	d delivery rod stop temp. 40°C (104°F)	Idle	fuel delivery 6	Low idle speed 5		
rev/min	cm ² /1000 strokes	1 .	rev/min		1	cm³/1000 strokes	rev/min	travel	
,	2	3	1	2	6	7	8	9	
AC-Nr.	4 393 823								
1050	187,0-193,0	1070	900 700	174,0-180,0 175,0-181,0		130,0-170,0	300	19,0-25	
AC-Nr.	4 393 825								
1050	224,0-230,0	1070	800	185,0-191,0	100	130,0-170,0	300	19,0-25,	
AC-Nr.	4 393 827								
1050	200,0-206,0	1070	900 700	190,0-196,0 214,0-220,0		130,0-170,0	300	19,0-25,	
AC-Nr.	4 393 829								
1050	230,0-234,0	1070	-	-	100	130,0-170,0	300	19,0-25,	
AC-Nr.	4 393 831								
050	213,0-219,0	1070	900 700	202,0-208,0 230,0-236,0	100	130,0-170,0	-	-	
ic-Nr.	4 393 833								
050	264,0	1060-1080	900	280,5	100	130,0-170,0	300	19,0-25,	
C-Nr.	4 393 835								
050	220,0-226,0	1070	900 700	210,0-216,0 243,0-249,0	100	130,0-170,0	300	19,0,25,	
C-Nr.	4 393 837			·					
050	227,0-233,0	1070	900 700	208,0-214,0 247,0-253,0	100	130,0-170,0	300 ⁻ 1	9,0-25,	
C-Nr.	4 393 890								
950	208,0-214,0	990	750	196,0-202,0	100	130,0-170,0	300 2	21,0-27,	
C-Nr.	4 393 891							•	
955	208,0	965-975	895	203,0	-			•	
C-Nr.	4 393 961								
900	181,0-187,0	920	700	172,0-178,0	100	130,0-170,0	300 1	9,0-25,	
C-Nr.	4 394 001								
700	218,0-224,0	720	600	240,0-246,0	100	130,0-170,0	300 2	7,0-33,	
C-Nr.	4 394 017								
950	208,0-214,0	990	750	196,0-202,0	100	130,0-170,0	300 2	1,0-27,0	
C-Nr.	4 394 020								
700	249,0-257,0	725	600	258,0-264,0	100	130,0-170,0		_	

Contro	ad delivery H-rod stop I temp. 40°C (104°F) (2)	Breakaway	Cont	oad delivery rol-rod stop oil temp. 40°C (104°F)	Idle	ing point	Low idle speed 5	
revima	n cm³/1000 strokes	rev/min	revis	nin cm³/1000 strokes	rev/mir	cm³/1000 strokes	travel rev/min mm	
1	2	3		2	6	7	8 9	
	4 394 062	000	600	400 0 400 4				
800	113,0-119,0	820	600	102,0-108,0	100	130,0-170,0	300 19,0-25,	
	4 394 064							
875	161,0-165,0	890	600	140,0-144,0	100	130,0-170,0	300 19,0-25,	
AC-Nr	. 4 394 066							
800	125,0-131,0	820	600	134,0-140,0	100	130,0-170-0	300 19,0-25,	
AC-Nr	. 4 394 068							
1025	192,0-198,0	1045	900	180,0-186,0	100	130,0-170,0	300 19,0-25,0	
AC-Nr	. 4 394 070							
1000	200,0-206,0	1020	800	180,0-186,0	100	130.0-170.0	300 19,0-25,0	
			600	189,0-195,0		,	13,0 20,0	
AC-Nr.	4 394 072							
940	185,0-195,0	955-65		-	100	130,0-170,0	300 19,0-25,0	
AC-Nr.	4 394 074							
1025	230,0-236,0	1040	900	207,0-213,0	100	130.0-170.0	300 19,0-25,0	
			700	209,0-215,0			,. 20,0	
AC-Nr.	4 394 076							
1000	227,0-233,0	1020	800	197,0-203,0	100	130,0-170,0	300 19,0-25,0	
AC-Nr.	4 394 078					•		
1000	235,0-241,0	1020	700	263,0-269,0	100	130,0-170,0	300 19,0-25,0	
AC-Nr.	4 394 080					-	•	
1000	220,0-226,0	1020	800	209,0-215,0	100	130-0-170-0	300 19,0,25,0	
			600	227,0-233,0		10030 17030	000 13,0,23,0	
AC-Nr.	4 394 082							
910	190,0	930	•	-	100	130,0-170,0	300 25,0	
AC-Nr.	4 394 084							
900	160,0-166,0	920	700	139,0-145,0	100	130.0-170.0	300 19,0-25,0	
AC-Nr.	4 394 086							
600	124,0-130,0	620	•	•	100	130 0-170 0	200 10 0 25 0	
	4 394 088				100	190,0-1/0,0	300 19,0-25,0	
700	127,0-133,0	720	600	124 0 420 0	400	100 0 100 0		
		120	600	124,0-130,0	100	130,0-170,0 3	300 19,0-25,0	
	4 394 090	222	***					
800	139,0-145,0	820	600	124,0-130,0	100	130,0-170,0 3	300 19,0-25,0	

C.	Settings	for	Fuel	Inje	ction	Pump with	Fitted	Governor
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Control	d delivery Frod stop temp. 40°C (104°F)	Breakaway intermediate spe	Contro	nd delivery Frod stop I temp. 40°C (104°F)	idle	fuel delivery 6	Low idle speed 5 Control rod		
rev/min	cm³/1000 strokes	revimin	rev/mu		revirsin	cm³/1000 strokes	rdv/min		
1	2	- 3		3	6	17	8	9	
10. No.	4 204 000								
	. 4 394 092	045	000	445 0 454 0	400	400 0 400 0			
925	157,0-163,0	945	800 600	145,0-151,0 134,0-140,0	100	130,0-170,0	300 1	19,0-25,	
AC-Nr.	4 394 094								
1000 -	180,0-186,0	1020	800 700	154,0-160,0 142,0-148,0	100	130,0-170,0	300 1	9,0-25,	
AC-Nr.	4 394 096								
1050	207,0-213,0	1070	900 800	161,0-175,0 147,0-153,0	100	130,0-170,0	300 1	9,0-25,	
C-Nr.	4 394 098								
900	187,0-193,0	920	700	162,0-168,0	100	130,0-170,0	300 2	7,0-33,	
\C-Nr.	4 394 100								
900	200,0-206,0	920	700	184,0-190,0	163	130,0-170,0	300 2	7.0-33.	
C-No	4 394 102							,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
900	203,0-209,0	920	700	209,0-215,0	100	120 0170 0	200 4	0 0 05	
		320	700	209,0-215,0	100	130,0-170,0	300 1	9,0-25,	
	4 394 104								
750	185,0-191,0	770	600	222,0-228,0	100	130,0-170,0	300 1	9,0-25,	
C-Nr.	4 394 106								
800	210,0-218,0	820	600	223,0-229,0	100	130,0-170,0	300 1	9,0-25,	
C-Nr.	4 394 108								
050	222,0-228,0	1070	900	202,0-208,0	100	130,0-170,0	300 1	9,0-25,	
			700	207,0-213,0					
	4 394 110								
000	240,0-246,0	1020	800 600	224,0-230,0 237,0-243,0	100	130,0-170,0	300 1	9,0-25,	
			000	237,0-243,0					
	4 394 112	4070	000						
050	245,0-251,0	1070	900 700	224,0-230,0 237,0-243,0	100	130,0-170,0	300 1	9,0-25,	
C-Nr	4 394 114			•					
000	217,0-223,0	1020	800	197,0-203,0	100	130,0-170,0	200 10) A 2E (
		. 464	600	219,0-225,0	100	190,0-1/0,0	13	,u-∠5,l	
C-Nr.	4 394 116								
900	210,0-216,0	920	700	212,0-218,0	100	130,0-170,0	300 27	7,0-33.0	
-Nr	4 394 118			•				,, (
)50	269,0-275,0	1070	900	281,0-287,0	100	120 0-170 0	200 47		
,50	LU39U-2/39U	10/9	700	293,0-299,0	100	130,0-170,0 3	300 15	,u-25,(

uli-toad		Breakaway	(3)	Full-load		Starting i	fuel delivery 6	Low id	e speed 3
Control-re Test oil te	nd stop mp. 40°C (104°F) (2)	intermediate sp	ead	Control no Test oil te	mp. 40°C (104°F)	witchin	g point		Control roo
ev/min	cm ³ /1000 strokes	rev/min	(9)	rev/min	cm³/1000 strokes	rev/min		rev/min	mm
	2	3		3	2	6	7	8	9
C-Nr.	4 394 120								
)50	234,0-240,0	1070		900	246,0-252,0	100	130.0-170.0	300	19.0-25
J30	254,0-240,0	1070		700	268,0-274,0		,		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
`-Nr	4 394 122								
250	262,0-268,0	1070		900	279,0-285,0	100	130,0-170,0	300	19.0-25
<i>2</i> 30	202,0 200,0	.075		700	289,0-295,0				
C-Nr.	4 394 124								
050	241.0-247.0	1070		900	265,0-271,0	100	130,0-170,0	300	19,0-25
	,.			700	268,0-274,0				
C-Nr.	4 394 126								
900	232,0-238,0	920		700	253,0-259,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 394 128							•	
750	244,0-250,0	770		700	253,0-259,0	100	130,0-170,0	300	19.0-25
		770		700	230,0 203,0	100	100,0 170,0		,
C-Nr.	4 394 130					400	400 0 470 0	000	40 0 05
300	239,0-245,0	820		600	248,0-254,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 394 132								
000	212,0-218,0	1020		800	230,0-236,0	100	130,0-170,0	300	19,0-25
C-Nr.	4 394 134								
900	288,0-294,0	920		700	287,0-293,0	100	130,0-170,0	300	27,0-33
	4 394 136 255,0-261,0	1020		800	272,0-278,0	100	130,0-170,0	300	19 0-25
000	255,0-261,0	1020		600	270,0-276,0	100	130,0 170,0	300	13,0-23
- Na	4 394 138								
)50	239,0-245,0	1070		900	233,0-239,0	100	130,0-170,0	300	19.0-25
750	233,0-243,0	1070		700	273,0-279,0	.00	130,0 170,0	000	15,0 20
C-Nr.	4 394 140								
000	215,0-221,0	1020		800	197,0-203,0	100	130,0-170,0	300	19,0-25
	,,			600	220,0-226,0			- -	J = V
C-Nr.	4 394 142								
900	222,0-228,0	920		700	254,0-260,0	100	130,0-170,0	300	19,0-25
	4 394 144								
-Nr.	257,0-263,0	1070		750	272,0-278,0	100	130,0-170,0	300	27. N-33
30	LU/,U-203,U	1070		, 50	2/230°2/030	100	10030 17030	200	E730-00
	4 394 148								
)50	295,0-303,0	1075		900	309,0-315,0	100	130,0-170,0	300	25,0

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r e	attingo	FAP EILE	Iniantian	- Christian ex satisfic	Eithead	GOVOMOR
U. 31	JLLIII KO	IUI FUE	ii direcuuli	Pump with	FILLEU	COTEILIO

Full-load of Control-ro Test od te	Selivery od stop mp. 40°C (104°F) (2)	Breakaway (a	Full-load (Control-re Test oil te	delivery od stop mp. 40°C (104°F)	Starting idle switching	luel delivery 6	Low id	e speed 5
rev/min	cm³/1000 strokes	rev/min	rev/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokas	reiv/min	travel mm
1	2	3	1	2	6	7	8	9
	1	1	•	1	1		ı	
AC-Nr.	4 394 150							
1050	268,0-274,0	1070	900	274,0-280,0		130,0-170,0	300	19,0-25
			700	280,0-286,0				
C-Nr.	4 394 152							
1050	262,0-268,0	1070	900	267,0-273,0	100	130,0-170,0	300	10 0-25
UOU	202,0-200,0	1070	700	267,0-273,0		130,0-170,0	300	13,0-23,
	4 394 154							
050	279,0-285,0	1070	900 700	283,0-289,0	100	130,0-170,0	300	19,0-25
			700	293,0-299,0				
C-Nr.	4 394 156							
050	296,0-302,0	1070	900	301,0-307,0	100	130,0-170,0	300	19,0-25,
			700	309,0-315,0				
10- MM	4 394 158							
	4 394 157							
050	253,0-256,0	1070	900	252,0-258,0	100	130,0-170,0	300	19 0-25
000	200,0 200,0	1070	700	269,0-275,0	100	100,0 170,0	000	13,0 23,
O N	4 004 460							
	4 394 160							
050	208,0-214,0	1070	900 700	230,0-235,0 260,0-266,0	100	130,0-170,0	300	19,0-25,
			700	200,0-200,0				
C-Nr.	4 394 162							
900	181,0-187,0	920	700	172,0-178,0	100	130,0-170,0	300	19,0-25,
C. No.	A 204 464			•				
	4 394 164							
925	176,0-182,0	945	800 700	162,0-168,0 177,0-183,0	100	130,0-170,0	300	19,0-25,
		*	700	177,0-103,0				
C-Nr.	4 394 166							
900	173,0-179,0	920	800	160,0-166,0	100	130,0-170,0	300	19,0-25,
C No	A 204 460							
	4 394 168	0.15						
925	237,0-243,0	945	800 700	251,0-257,0 269,0-275,0	100	130,0-170,0	300	27,0-33,
			700	203,0-2/3,0				
C-Nr.	4 394 170							
700	218,0-224,0	720	600	240,0-246,0	100	130,0-170,0	300	27,0-33.
				•	_			
	4 394 176							
050	213,0-219,0	1070	900	212,0-218,0	100	130,0-170,0	300	19,0-25,
			700	240,0-246,0				

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Cont	tol-roc oil terr	elivery 1 stop 1p. 40°C (104°F) cm³/1000 strokes 2	Breakaway (2) intermediate speed rev/min (4)	nig	h idle s	(S)	idie switchin	rev/min	Control rod travel mm
				1					

C. Settings for Fuel Injection Pump with Fitted Governor

AC-Nr. 4 394 246

1050 975 700 237,5-247,0 100 130,0-170,0 300 19,0-25,0 258,5-269,5 211,0-220,0 1055-1075

			700 600	258,5-269,5 255,5-266,0		
	stop part posit t stop part pos					
AC-Nr.	4 394 248					
700 600	246,0 263,0	720			100	130,0-170,0 300 19,0-25,0
AC-Nr.	4 394 250					
1050	244,5-254,5	1060-1080			100	130,0-170,0 300 19,0-25,0
AC-Nr.	4 394 257					
600	258,0	•		•	100	130,0-170,0 300 27,0
AC-Nr.	4 394 314					
1050 900 700	246,0 240,0 267,0	1070		•	100	130,0-170,0 300 19,0-25,0
AC-Nr.	4 394 331					
1050 900 700	241,0-247,0 265,0-271,0 268,0-274,0	1070			100	130,0-170,0 300 19,0-25,0
AC-Nr.	4 394 332					
1050 900 700	268,0-274,0 274,0-280,0 280,0-286,0	1070			100	130,0-170,0 300 19,0-25,0
AC-Nr.	4 394 347 .					
1050 900 700	269,0-275,0 281,0-287,0 293,0-299,0	1070			100	130,0-170,0 300 19,0-25,0
AC-Nr.	4 394 348					
1050 900 700	234,0-240,0 246,0-252,0 268,0-274,0	1070			100	130,0-170,0 300 19,0-25,0
AC-Nr.	4 394 349					
1050 900 700	208,0-214,0 230,0-236,0 260,0-266,0	1070			100	130,0-170,0 300 19,0-25,0
AC-Nr.	4 394 350					
1050 900 700	262,0-268,0 279,0-285,0 289,0-295,0	1070			100	130,0-170,0 300 19,0-25,0

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	delivery	Breakaway (20 Fuel de	Nivery characteristics (5		fuel delivery 6	Low id	e speed 5
	rod stop temp. 40°C (104°F) (2)	intermediate apead	nigh id	speed (36)	switchi	ng point		Control roc
un), Am	cm³/1000 strokes	rev/min (rev/mi	cm³/1000 strokes	rev/min	cm³/1000 strokes	rév/min	travel mm
1	2	3	- 4	5	6	7	8	9
AC-Nr.	. 4 394 351	•	•	•	•	•	•	•
1050 900 700	253,0-256,0 252,0-258,0 269,0-275,0	1070			100	130,0-170,0	300	19,0-25,
AC-Nr.	4 394 352							
900 700	262,0-268,0 267,0-273,0 267,0-273,0	1070			100	130,0-170,0	300	19,0-25,
NC-Nr.	4 394 353							
050 900 700	279,0-285,0 283,0-289,0 293,0-299,0	1070			100	130,0-170,0	300 1	19,0-25,
IC-Nr.	4 394 354							
050 900 700	296,0-302,0 301,0-307,0 309,0-315,0	1070			100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 356							
050 900 700	246,0 240,0 267,0	1070			100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 386							
600	167,0-175,0	620			100	130,0-170,0	300 2	5,0
C-Nr.	4 394 390							
900 700	259,0-267,0 238,0-246,0	925			100	130,0-170,0	300 1	9,0-29,0
	4 394 428							
000 300	188,0-196,0 180,0-187,0	1025	•		100	130,0-170,0	300 2	5,0
C-Nr.	4 394 473							
	189,0-197,0 185,0-193,0	875			100	130,0-170,0	325 3	0,0
-Nr.	4 394 501							
	175,0 158,0	925			100	130,0-170,0	300 19	9,0-25,0
-Nr.	4 394 521							•
	239,0-247,0 229,0-235,0	1025			100	130,0-170,0 3	300 25	5,0
-Nr.	4 394 527							
	161,0 151,0	925			100	130,0-170,0 3	19	,0-25,0

C. Set	tings for Fu	iel Injection	Pum	p with Fitte	d Go	vernor		
Full-load del Control-rod Test oil term			Fuel deli high idle s	very characteristics (56)	Starting idle switchir	fuel delivery 6	Low id	le speed 5
	cm³/1000 strokes	rev/min 49	rev/min	cm ³ /1000 strokes		cm ³ /1000 strokes	rev/mir	travel
1 :	2	3	4	5	6	7	8	9
AC-Nr.	4 394 541	•	•				•	•
1050	202,0-210,5	1060-1080			100	130,0-170,	0 300	19.0-25
AC-Nr.	4 394 550					•		
	230,5-239,5	1010-1030			100	130,0-170,	U 3UU	19.0-25
	1 394 561					,,.,	000	15,0 2.
	258,0	1060-1080			100	130,0-170,	U 3UU	10 0-25
	256,0	1000 1000				130,0-170,	0 300	19,0-25
AC-Nr. 4	394 564							
	244,0	1070			100	130,0-170,0	300	19,0-25
	234,0			٠				
	394 569							
000 2	203,0-211,5	1010-1030		•	100	130,0-170,0	300	19,0-25
	394 590							
	260,5-271,0	1060-1080		. 750 004		130,0-170,0		-
Beginnir De "020'	ng of movemen".	nt: 0,40 - 0,4	15 bar	at 750 PRM a	nd U,	90 bar press	ure,	gap shou
	394 593	•						
050 2	51,5-261,5	1060-1080			100	130,0-170,0	300	19.0-25
C-Nr. 4	394 703					•		
	60,5-271,0	1060-1080	900	267,0-278,0	100	130,0-170,0	300	19-0-25
ilt sto	op part posit	ion to obtain	700 1 guan	267,0-278,0 tity at 1050				
obtain n	nean curve at	oove. Beginnii nould be "020'	ng of i	movement: 0,4	0 - 0	,45 bar at 7	50 PR	M and O,
	394 705 394 706							
	58,0	1060-1080			100	130,0-170	300	19,0-25
	56,0		•					
	394 707							
	14,0 34,0	1070	•		100	130,0-170,0	300	19,0-25
	394 718							
	98,0-213,0	965-975			100	120 0 470 0	200	24 2 25
	6,0-210,0	JUJ-3/ J			100	130,0-170,0	300	∠1 , U-27,
-Nr. 4	394 719							
	6,0-168,0	915	•		100	130,0-170,0	300 2	21,0-27.
00 14	2,5-146,5							· •
	394 733						*,	
	5,0-261,0	1020			400	120 0 170 0	000	
	2,0-278,0	1020			100	130,0-170,0	300 1	19,0-25,

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C. Set	ings for	Fuel In	jection	Pump	with	Fitted	Governor	
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-14-

	delivery rod stop	Breakaway 20	Fuel deli	very characteristics (5a)	Starting Irile	fuel delivery 6	Low idl	e speed 5
Test oil t	lemp. 40°C (104°F) 2	intermediate speed	1101 000	peed ®	switchir	eg point i		Control rod
rev/min		rev/min 48	rev/min	cm ³ /1000 strokes		cm³/1000 strokes	reiv/min	ann .
1	2	3	-	5	6	7	8	9
AC-Nr.								
1020 915	213,0-226,0 208,0-218,0	1030-1040						
AC-Nr.	. 4 394 744							
1050 900	250,0 256,0	1060-1080			100	130,0-170,0	300	19,0-25,
AC-Nr.	. 4 394 745							
950 750	208,0-214,0 196,0-202,0	990			100	130,0-170,0	300	21,0-27,
AC-Nr.	4 394 746							
875 600	161,0-165,0 140,0-144,0	890			100	130,0-170,0	300	19,0-25,
AC-Nr.	4 394 771							
800 600	113,0-119,0 102,0-108,0	820			100	130,0-170,0	300 1	9,0-25,
AC-Nr.	4 394 773			•				
800 600	125,0-131,0 134,0-140,0	820			100	130,0-170,0	300 1	9,0-25,
AC-Nr.	4 394 775							
1025 900	192,0-198,0 180,0-186,0	1045			100	130,0-170,0	300 1	9,0-25,
AC-Nr.	4 394 777							
1000 800 600	200,0-206,0 180,0-186,0 189,0-195,0	1020			100	130,0-170,0	300 1	9,0-25,
AC-Nr.	4 394 779							
940	185,0-195,0	955-65			100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 781							
1025 900 700	230,0-236,0 207,0-213,0 209,0-215,0	1040			100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 783							
000	227,0-233,0 197,0-203,0	1020			100	130,0-170,0	300 1	9,0-25,0
\C-Nr.	4 394 785		•					
000 700	235,0-241,0 263,0-269,0	1020			100	130,0-170,0	300 1	9,0-25,0

C. S	ettings	for Fuel k	rjection	Pump with	Fitted	Governor
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Full-load delivery Control-rod stop Test oil temp. 40°C (104°F) (2				Fuel delin high idle 1	rery characteristics (5)	Idie	•		e speed 5
Test oil ter		intermediate apr			•	awitchin			Control rod travel
rev/min	cm³/1000 strokes	rev/min	4	rev/min 4	cm ³ /1000 strokes	rev/min	cm ³ /1000 strokes	ráy/min 8	mm 9
1	2	3		-	-	1			
C-Nr.	4 394 787								
1000	220,0-226,0	1020				100	130,0-170,0	300	19,0-25
800	209,0-215,0								
600	227,0-233,0								
C-Nr.	4 394 789								
910	190,0	930				100	130,0-170,0	300	25,0
C-Nr.	4 394 791								
900	160,0-166,0	920				100	130,0-170,0	300	19,0-25
700	139,0-145,0	<i>3</i> 20				• • • •			
IC-No	4 394 793				•				
		636				100	130,0-170,0	300	19.0-25.
600	124,0-130,0	62§				100	130,0 170,0	000	10,0 00
C-Nr.	4 394 795				•				
700	127,0-133,0	720				100	130,0-170,0	300	19,0-25
600	124,0-130,0								
C-Nr.	4 394 797								
800	139,0-145,0	820				100	130,0-170,0	300	19,0-25
600	124,0-130,0								
C-Nr.	4 394 799								
925	157,0-163,0	945				100	130,0-170,0	300	19,0-25
800 600	145,0-151,0 134,0-140,0								
C-Nr.	4 394 801								
000	180,0-186,0	1020				100	130,0-170,0	300	19,0-25
800 700	154,0-160,0 142,0-148,0								
					·				
	4 394 803	4070				100	130.0-170.0	200	10 0-25
900 900	207,0-213,0 161,0-175,0	1070				100	130,0-170,0	300	13,0-23
800	147,0-153,0								
C-Nr	4 394 805								
900	187,0-193,0	920				100	130,0-170,0	300	27,0-33
700	162,0-168,0	260					,,.,		,
C-N-	A 20A 907								
	4 394 807	ดวกิ				100	130,0-170,0	300	27. N=32
900 700	200,0-206,0	920				100	150,50-170,50	300	L/,U-33
_	4 394 809	222				400	420 0 470 0	200	10 0 05
900	203,0-209,0	920				100	130,0-170,0	300	19,0-25

		el Injection				100 249	0.60004	
Full-load d Control-ro Test oil ter		Breakaway	high idle t	rery cheracteristics (56 peed (50)	Starting i idle switchin		LOW 181	e Speed 5
ten/uniu	cm ³ /1000 strokes	rev/min	rev/min	cm ³ /1000 strokes	rev/min	cm³/1000 strokes	rev/min	trave! mm
1	2	3	4	5	6	7	8	9
AC-Nr.	4 394 811	•	•	•	•	'	•	
750 600	185,0-191,0 222,0-228,0	770			100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 813							
800 600	210,0-218,0 223,0-229,0	820			100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 815							
1050 900 700	222,0-228,0 202,0-208,0 207,0-213,0	1070			100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 817	•						
1000 800 600	240,0-246,0 224,0-230,0 237,0-243,0	1020		·	100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 819							
1050 900 700	245,0-251,0 224,0-230,0 237,0-243,0	1070			100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 821							,
1000 800 600	217,0-223,0 197,0-203,0 219,0-225,0	1020			100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 823							
900 700	210,0-216,0 212,0-218,0	920			100	130,0-170,0	300	27,0-33
AC-Nr.	4 394 825							
1050 900 700	269,0-275,0 281,0-287,0 293,0-299,0	1070			100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 827	•						
1050 900 700	234,0-240,0 246,0-252,0 268,0-274,0	1070			100	130,0-170,0	300	19,0-25
AC-Nr.	4 394 829							
1050 900 700	262,0-268,0 279,0-285,0 289,0-295,0	1070			100	130,0-170,0	300	19,0-25,
AC-Nr.	4 394 831							
900	241,0-247,0 265,0-271,0 268,0-274,0	1070			100	130,0-170,0	300	19,0-25,

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C.	Settings	for Fuel In	jection	Pump with	Fitted Governor

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Full-102	ettings for F	Breakaway				=		Low idl	e speed 5
Test of	l-rod stop I temp. 40°C (104°F) (2) intennediate sc		ringin ichie s	peed (30)		ling point		Control rod
rev/mir	cm³/1000 strokes	rev/min	(4)	rev/min	cm ³ /1000 strokes	rev/mi	n cm³/1000 strokes	reiv/min	
1	2	3		4	5	- 6	7	8	9
	4 004 000					·			
	. 4 394 833	000							
900 700	232,0-238,0 253,0-259,0	920				100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 835								
750 700	244,0-250,0 253,0-259,0	770				100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 837								
800 600	239,0-245,0 248,0-254,0	820				100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 839								
1000 800	212,0-218,0 230,0-236,0	1020			•	100	130,0-170,0	300 1	9,0-25,0
AC-Nr.	4 394 841								
900 700	288,0-294,0 287,0-293,0	920				100	130,0-170,0	300 2	7,0-33,0
AC-Nr.	4 394 843								
1000	255,0-261,0	1020				100	130,0-170,0	300 10	0 0-25 0
800 600	272,0-278,0 270,0-276,0					100	100,0 170,0	300 1	9,0-25,0
AC-Nr.	4 394 845								
1050 900	239,0-245,0 233,0-239,0	1070				100	130,0-170,0	300 19	9,0-25,0
700	273,0-279,0								
AC-Nr.	4 394 847								
1000 800 600	215,0-221,0 197,0-203,0 220,0-226,0	1020				100	130,0-170,0	300 19	,0-25,0
	4 394 849			•					
900 700	222,0-228,0 254,0-260,0	920				100	130,0-170,0	300 19	,0-25,0
AC-Nr.	4 394 851								
1050 750	257,0-263,0 272,0-278,0	1070				100	130,0-170,0	300 27	,0-33,0
AC-Nr.	4 394 853								
	295,0-303,0 309,0-315,0	1075				100	130,0-170,0	300 25	,0
IC-Nr.	4 394 857								
1050	262,0-268,0 267,0-273,0	1070				100	130,0-170,0	300 19	,0-25,0
	267,0-273,0	F		40:1	ISO A	440	1		

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C. Settings for Fuel Injection Pump with Fitted Governor

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Full-load Control-r Test oil te			high idle i	very characteristics(5e) speed (50)	Starting Idle switchir	fuul delivery (6) ng point	Low idl	Control rod
rev/min	cm³/1000 strokes	'	rev/min	cm ³ /1000 strokes	rev/min		reiv/mun	travel
1	2	3	4	5	6	7	8	9
		•	•					
C-Nr.	4 394 861							
050 900 700	296,0-302,0 301,0-307,0 309,0-315,0	1070			100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 863							
050 900 700	253,0-256,0 252,0-258,0 269,0-275,0	1070		∇	100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 865							
050 900 700	208,0-214,0 230,0-236,0 260,0-266,0	1070		·	100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 867							
900 700	181,0-187,0 172,0-178,0	920			100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 869							
925 800 700	176,0-182,0 162,0-168,0 177,0-183,0	945		T.	100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 871							
900 800	173,0-179,0 160,0-166,0	920			100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 873					•		
925 800 700	237,0-243,0 251,0-257,0 269,0-275,0	945			100	130,0-170,0	300 2	7,0-33,
C-Nr.	4 394 875							
700 600	218,0-224,0 240,0-246,0	720			100	130,0-170,0	300 2	7,0-33,
C-Nr.	4 394 877							
	213,0-219,0 212,0-218,0 240,0-246,0	1060-1080			100	130,0-170,0	300 1	9,0-25,
C-Nr.	4 394 879					٠		
050	211,0-220,0	1055-1075	975 700 600	237,5-247,0 258,5-269,5 255,5-266,0	100	130,0-170,0	19,0-	25,0

Tilt stop part position to obtain quantity at 1050 PRM. Adjust stop part position to obtain mean curve above.

C. Settings	s for Fuel Injection Pump v	with Fitted Governor

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Full-toad delivery Control-rod stop		Breakaway (25) Fuel delivery characteristics (5a)		Starting fuel delivery 6		Low idle speed 5		
Test oil temp. 40°C (104°F) (2)		intermediate speed (50)		(S)	switching point		1	Control rod
rev/min	cm³/1000 strokes	rev/min 49	rev/min	cm ³ /1000 strokes		cm ³ /1000 strokes	rev/min	mm
ļ '	2	3	4	5	6	7	8	9
AC-Nr.	4 394 881							
700	246,0	720			100	130,0-170,0	300	19,0-25,0
600	263,0							•
AC-Nr.	4 394 883							
1050	244,5-254,5	1060-1080			100	130,0-170,0	300	19,0-25,0
AC-Nr.	4 394 885							
600	258,0				100	130,0-170,0	300	27.0
AC-Nr.	4 394 891					•		
600	167,0-175,0	620			100	130,0-170,0	300	25 0
AC-Nr	4 394 893					100,0 170,0	500	23,0
900	259,0-267,0	925			400	400 0 470 0		
700	238,0-246,0	920			100	130,0-170,0	300	19,0-29,0
AC-Nr.	4 394 895							
1000	188,0-196,0	1025			100	130,0-170,0	300 3	25.0
800	180,0-187,0					,.		-0,0
AC-Nr.	4 394 897							
850	189,0-197,0	875			100	130,0-170,0	325 3	30,0
750	185,0-193,0							
	4 394 899							
900 700	175,0 158,0	925		·	100	130,0-170,0	300 1	9,0-25,0
	4 394 905							
	239,0-247,0	1025			400	400 0 470 0		
	229,0-235,0	1025			100	130,0-170,0	300 2	25,0
AC-Nr.	4 394 907							
	161,0	925 -			100	130,0-170,0	300 1	9.0-25.0
	151,0					,,.,.		3,0 23,0
	ing of movement ir pressure, ga			at 750 PRM an	d			
	4 394 909	p 0ou. u.c						
	202,0-210,5	1060-1080			100	120 0 170 0	200 4	0 0 25 0
					100	130,0-170,0 3	ו טטט	J,U-25,U
	4 394 911	4040 4000						
	230,5-239,5	1010-1030			100	130,0-170,0 3	100 1	9,0-25,0
	4 394 915							
1000	203,0-211,5	1010-1030			100	130,0-170,0 3	100 1	9,0-25,0

Full-load di Control-roi Test oil ten	1 2100	Breakaway 2b	Fuel delin high idle s		Starting Idle switchin		Low idl	e speed 5	l
rev/min	•		rev/min 4	cm ³ /1000 strokes 5	rev/min 6	cm ³ /1000 strokes 7	reiv/min 8_	travel mm 9	
									ł

AC-Nr. 4 394 917

1060-1080 260,5-271,0 1050

100 130,0-170,0 300 19,0-25,0

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Beginning of movement: 0,40 - 0,45 bar at 750 PRM and

0,90 bar pressure, gap should be "020".

AC-Nr. 4 394 919

1060-1080 215,5-261,5 1050

100 130,0-170,0 300 19,0-25,0

AC-Nr. 4 394 921

260,5-271,0 1050

900 1060-1080

267,0-278,0 100 130,0-170,0 300 19,0-25,0

267,0-278,0 700

Tilt stop part position to obtain quantity at 1050 PRM. Adjust stop part position to obtain mean curve above. Beginning of movement: 0,40 - 0,45 bar at 750 PRM and 0,90 bar pressure, gap should be "020".

AC-Nr. 4 394 925

1050 244,0 1070

100 130,0-170,0 300 19,0-25,0

900 234,0

AC-Nr. 4 394 997

900 173,0-179,0 160,0-166,0 800

920

100 130,0-170,0 300 19,0-25,0